

GEOGRAPHICAL SERIES NO 1
General Editor : R. P. Srivastava

ANTHROPOGRAPHY

(A study of Races & People of the world)

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By

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PREFACE

The following work provides a brief discussion of some of the more important aspects of Anthropography. It is designed as an introduction and a guide to a difficult and scattered literature with which students of geography, anthropology and sociology are concerned.

Within the limits of these pages it is very difficult to treat, even briefly, all the ramifications of the subject. Hence, by making a somewhat arbitrary choice, I have limited myself to two themes.

The first concerns the basic conceptions of the subject: races of the world, migration and international tensions and the population problem of the world as a whole.

The second theme is mainly concerned with certain problems connected with our own country. In India at the present day, we find an infinite variety of physiognomy, colour, and physique among its inhabitants, such as is exhibited among different nationalities in other parts of the world. The fair-faced, keen-eyed aquiline-nosed and somewhat intellectual Brahman, the stalwart and commanding Rajput; the supple Banias, the conceited yet able Kayasthas, the clever *bari* or carpenter, the heavy-browed *lohar* or blacksmith, the wiry and laborious *kumbhi* or agriculturist, the wild and semi-barbarous aborigines, and hundreds of other tribes and castes, are in reality so many distinct types of the human family, with their own special characteristics and marked idiosyncracies. The wonder is, that such a diversity could have been produced among the inhabitants of one country.

But what shall we say of the four hundred and thirty millions inhabiting India, who have chosen to separate themselves from one another for a multitude of reasons—reasons arising from difference of occupation, from religious feeling, from social interests, from a love of superiority, from selfishness, from caprice, from arrogance, from a spirit of acclusiveness, from eating certain things and not eating others, from adopting certain usages and not, adopting others! But the boundary lines dividing the vast Hindu race into multitudinous clans, which are literally beyond computation, are impassable barriers which it is absolutely impossible either to break down or to leap over. The fact of the segregation of Hindus into hundreds and thousands of classes, all, for the most part, mutually seclusive, is patent to every body.

In writing this book I have received much valuable criticism and it is with great pleasure that I take this opportunity of thanking all those who have helped me in one way or another.

I wish to express my deep gratitude to Dr. Mohd. Yunus, Head of the Geography Department at Govt. College Nainital, for his valuable and inspiring guidance in the preparation of this book.

I am especially indebted to Mr. P. P. Srivastava, Head of Geography Department C. M. P. College, Allahabad, who kindly undertook the task of seeing the book through the press.

Most of the diagrams were drawn for me by B. S. Karkoti and Sri Sri Niwas Pathak, M. A.

I would also thank authors, societies and publishers for allowing me either to reproduce their own diagrams or quotations. I hope that I have correlated sufficient material to induce the student to consult the original references from which I have freely drawn and to pass on from them to other works.

Kapur Lodge,
Talli Tal,
Naini Tal.

Balbir Singh Nega

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In preparing this book I have received help from numerous scholars from different corners of the globe, therefore wish to express my gratitude to Dr. Griffith Taylor, Ex-Head of the Department of Geography in the University of Toronto and now at Seaforth, N.S. W Australia for kindly reproducing some quotations from Professor Tatham's article in "Geography in the 20th Century."

I must thank the Editor of the Ethnological Society for allowing me to use *certain extracts from my article entitled "Racial Survey of India"* which I contributed to that Journal, and incorporated in the Chapter Second of this book.

Special thanks are due to Messers Harcourt and Brace Co New York, for permission to incorporate Deniker's and the Czekanowski-Klimmer's classification, taken from Anthropology by A. L. Kroeber, and incorporated in the Chapter: 'Mankind so far.'

Dr. V. Elwin, the then Adviser for Tribal affairs NEFA has given me permission to reproduce quotations from his book "India's North East Frontier Agency", and offering valuable suggestions for the chapter on Tribes of North East Frontier Region.

I am also grateful to the Editor Wilma B. Fairchild, Geographical Review New York for permission to use the Maps 8 & 10 which originally appeared in the Journal 1919 and 1921 respectively. F. G. Halpenny, Editor University of Toronto Press has given permission to reproduce Figures 14 & 15 which originally appeared in "Environment, Race and Migration" by Dr. Taylor. I am thankful to him.

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CHAPTER I

INTRODUCTION

A bird's-eye-view on the origin and development of Anthropography is preliminary to a detailed discussion of the subject. It has also to be seen as to what the relation is between anthropography and Human Geography and what are the actions and reactions of one upon the other.

It is, no doubt, the foundations of geography as we know it today, were laid by the Greeks. Hippocrates, the founder of determinism in Human geography, was born in 460 B. C. Discussing on determinism, Hippocrates, writes in his "On Airs, Waters and Places" about the easy-going life of the Asiatics endowed by nature with very favourable physical environments and compares them with those of European countries, with a hard hand of nature upon them. He also contributes the slackness of the Asiatics and the hard-working nature of the Europeans of northern regions as consequent upon their respective physical environments. According to him the hard life and greater working capacity of the mountain dwellers and the easy going life and lower standards of work performed by the residents of the dry lowlands has a direct relationship with their respective environments. Similar observations are recorded by Aristotle, "The inhabitants of the colder countries of Europe are brave, but deficient in thought and technical skill, and as a consequence of this they remain free longer than others, but are wanting in political organization and unable to rule their neighbours." On the other hand "The people of Asia.....are thoughtful and skilful but without spirit, whence their permanent condition is one of subjection and slavery."

Similarly Strabo in his geographical accounts established a close relationship between the shape, relief climate and space and rise and strength of Roman Empire. The natural environment consisting of factors such as relief, shape, climate etc. have, according to him, influenced the growth of Roman Empire.

Emphasizing the close impact of environmental factors, a French determinist, J. Bodin, in the second half of the sixteenth century, characterised the people of north lands as, "brutal, cruel and interprising; those of the south as vengeful, cunning, but gifted with the capacity for separating truth from falsehood."

Moutescue has also been much influenced by the environmental factors as the moulder of human character. People in cold countries are stronger physically, more courageous, franker,

less cunning than those of the south who are "like old men, timorous, weak-in body, indolent and passive."¹ He has specifically laid down the governing influence upon climate. According to Montesqueue, "Island peoples are more jealous of their liberties than those of continents. Islands are commonly of small extent; one part of the people cannot be so easily employed to oppress the other; the sea separates them from great empires; tyranny cannot so well support itself within a small compass; conquerors are stopped by the sea, and the islanders being without the reach of their arms more easily preserve their own laws."² He has gone so much farther that according to him even the religion of the people is shaped and influenced by climate. According to Montesqueue even the political organization is based upon the physical environment. Continues Montesqueue, "bad legislators who favour the vices of the climate and good legislators who oppose these vices."³

These references of the environmentists show they tried to understand the variation of human types and it is the physical factors surrounding them that contribute a lot towards the development of these variations.

Before the arrival of Ritter in the geographic speculation, environmentalism had been recognised as the principal governing factor in the variations of human character. Although Ritter too recognised the governing influence of environmental factors in human character, he also paid proper heed to man's influence in moderating nature's hand.⁴ This balanced emphasis on man and nature became reflected in the first edition of his "Europ Gemalde," which he divided into two parts, the first part showing what the land owed to man and the second one depicting what the man owes to nature.

Alexander Von Humboldt, the founder of modern geography⁵, was born in 1767, had also been much impressed by the influence of environment on man but he could not dare evolve a hypothesis on that very ground. He was also interested in the reaction of human beings to the world around them, and the "kosmos" includes a lengthy discussion of "the nature of our knowledge of the external world and its different relations, in all epochs of history, and in all phases of intellectual advancement."⁶ The nature and effect of this impact can be traced by Gottingen by examining the work and thoughts of A. Von Humboldt, while

1. Montesqueue, *Spirit of Laws*, Book XIV chap. IV—Quoted by Dr Tatham.

2. Montesqueue, Book XVIII, chap. V—Quoted by Professor Tatham in Geog. in the 18th Century.

3. Montesqueue—Book XIV, chap. V—Quoted by Professor Tatham in Geog. in the 18th century.

4. Cronc, *Med to Geographers*, pp. 16—21.

5. Op. cit. p. 11.

6. Humboldt's Berlin Lectures, 1829.

"In India slavery, object external slavery, was the natural state of the great body of the people, it was the state to which they were doomed by physical laws utterly impossible to resist. The energy of these laws is, in truth, so invincible that whenever they come into play they have kept the productive classes in perpetual subjection. There is no instance on record of any tropical country in which wealth having been extensively accumulated, the people have escaped their fate, no instance in which the heat of climate has not caused an abundance of food, caused an unequal distribution, first of wealth and then of political and social power."¹⁰

The new world civilization is reflected in the influence of the prevailing climate. In western N. America, for instance, there is great heat but scarcity of rainfall whereas the opposite is the case in its eastern part. In other words none of the parts has a combination of the essential factors of human fertility, contrary to this, in Mexico-somewhat near the equator the combination of rainfall and heat is in equilibrium and therefore civilization flourished there earlier.

The next determinist was Edmond Demolins. Demolins stressed the influence of environmental factors and wrote that the route through which the migratory human races passed and where they ultimately settled is an important criterion for the development of human character, "The population found on the surface of the earth are infinitely varied. What has produced this variety? The answer usually given is Race. But Race explains nothing for it still leaves to be discovered what he produced races. The first and the decisive cause of the diversity of peoples and the diversity of races is the route that people have followed. It is the route that has created both race and social type. The routes of the earth like powerful alembics have transformed in this manner or that, the people who have entered upon them.

"It has not been a matter of indifference whether a people has followed one route or another, the route of the great steppes of Asia, or that of the Siberian Tundra, or that of the American grassland, or that of the African forests. Insensibly and inevitably these routes have fashioned the Tatar Mongol, the Lapp-Esquimaux, the Red-skin, the Indian, or the Negro type. There is nothing to advance against this statement. It will be seen that here is a well-established law. Nor has it been a matter of indifference that a people should start out on the route of the deserts of Arabia and the Sahara, or that of Southern or Eastern Asia. Insensibly and inevitably these routes have fashioned the Arab

forerunner of present day determinism. According to Dr. Taylor :—

"Protagonists of the possibilist theory instance the carrying of fertilizer to the Canadian prairies, or the remarkable development of somewhat sterile Northern Denmark as examples of human control, which have determined the utilization of the regions concerned. I do not for a moment deny that man plays a very important part, but he does not take fertilizer to the "barren grounds", nor would the Danes have developed their less attractive regions, if they had been free to choose among the good lands of the world. They have merely pushed ahead in Nature's 'plan' for their terrain. Even when their example is followed in other similar parts of the world, it will only indicate that man has advanced one more stage in his adjustment to the limits laid down by nature. Man is not a free agent.

"The writer then is a determinist. He believes that the best economic programme for a country to follow has in large part been determined by Nature, and it is the geographer's duty to interpret this programme. Man is able to accelerate, show or stop the progress of a country's development. But he should not, if he is wise, depart from the directions as indicated by the natural environment. He is like the traffic-controller in a large city, who alters the rate but not the direction of progress, and perhaps the phrase "Stop-And-Go-determinism" expresses succinctly the writer's geographical philosophy."

Possibilism.

The deterministic hypothesis in such a conservative form cannot be acceptable by the civilized human communities inhabiting the advanced countries. Man affects the physical environment by such activities as constructing canals in the extreme arid deserts in order to make those areas worthy of his residence. He also develops new ways to use the natural resources, exploited its geographical advantage. The natural environments have been modified and verified by technological improvements and to enrich itself in national and international trade and commerce.

The first possibilistic hypothesis was put forward by Febore. According to Febore man is not only a "geographic agent" but men have experienced the great changes on the surface of the earth. "Man is a geographical agent and not the least." Says Febore, "He everywhere contributes his share towards investing the physiograpy of the earth with those changing expressions which it is the especial charge of geography to study. Through centuries to centuries, by his accumulated labours and the boldness

position in the soil by ploughing, nor to utilize the water-falls, the force of gravity brought into place by inequalities of relief. He further collaborates with all living forces grouped together by environmental conditions. He joins in nature's game."

By the time of the arrival of Isaiah Bowman into the field of geography, the seeds of possibilism were striking root in new soil, and man also develops new methods to use natural resources, by technical improvements, it developed inter-relationship between man and the environment. Bowman gives explanation of this type of human skill. "As knowledge of the world spread, the associations of event or condition with place widened, they become more complex, they had less or more significance with respect to mankind. The potato and maize plants were unknown to pre-Columbian Europe. Their discovery raised the question, "Are they useful to the rest of humanity and where can they be grown? The whole known world was in a sense reserved by the rough processes of trial and error and the result has been astounding. These two plants largely changed the economy of Europe. The soil had not changed, man had gained a little more knowledge of it through a new plant. An element of one environment had been added to the elements, long fixed of many other environment."¹⁷

Febvre was the forerunner of the possibilistic hypothesis, encouraged the other possibilists to examine the causal relations. Although today, he has become rather a master of nature, but "There are no necessities, but everywhere possibilities; and man as master of these possibilities is the judge of their use. This by the reversal which it involves puts man in the first place, man is no longer the earth, nor the influence of climate, nor the determinant conditions of localities."¹⁸ But the relationship between man and nature is a reciprocal, nature modifying man and man modifying nature. "Earth facts do not determine the form and nature of human society in development. They condition it. New earth facts are continually being discovered and old earth facts given new significance as human knowledge thought and social action develop. The relations are reciprocal."¹⁹

As the man progressed, the mode of his livelihood changed entirely, and the scientific man of today is so prosperous in his resources that he has found out innumerable substitutes for his food, clothing and shelter. Man alters his environment, he has to lead the sort of life and has to enjoy activities which are determined by his environmental conditions. "Man can never entirely

17. Bowman, *Geography and Social Sciences*, p. 35.

18. Febvre, *Geographical Introduction to History*, p. 236.

19. *Op. cit.*, p. 215.

rid themselves whatever do of the hold their environment has on them. Taking this into consideration they utilize their geographical circumstances more or less according to what they are, and take advantage more or less completely of their geographical possibilities. But here as elsewhere there is no action of necessity."

These quotations make quite clear that "Men never entirely rid themselves," but nature offers many opportunities, and the action of that environment on his "posterity is changed in consequence."

Human geography is the science dealing with man in relation to environmental factors and the problems thereof. But unlike human geography the scope of Anthropography is much wider in that it deals with not only man in relation to his environmental problems but also the problems of races, sub-races and other living organisms in relation to their physical environments.

Anthropography.

Ratzel publishing his "Anthropo-geographie" in 1882-91 gave little or insignificant place to man in relation to his physical environment. In his work he proved to be a staunch determinist. But at the time he wrote his 'Anthropogeographie', scientists of other branches were propagating greater importance to man and from the trunk of geography evolved the science of sociology and as a consequence geography too had to allot man his proper share in his relation to natural factors. In other words the seeds of possibilism took root in the soil of human geography. Ratzel, in this way, had to turn to the complex human phenomena, but he never lost sight of the environmental factors: "He possessed to a very high degree the sense of terrestrial reality. He perceived the human facts on the earth no longer as a philosopher or historian or as a simple ethnographer, or as an economist but as a geographer. He distinguished their manifold, complex, variable connexions with the facts of the physical order, altitude, topography, climate, vegetation. He observed men peopling the globe, working on its surface, seeking their livelihood, and making history on the earth; he observed them with the eyes of a true naturalist."²⁰

Man was reckoned with as the "end product" of human evolution by Ratzel. In other words man was looked upon as the mainspring of natural selection, according to their capacity to adjust themselves to the physical environment.

In 1897 Ratzel attempted yet another major contribution in his "political Geographic". In the introduction Ratzel pointed out that since Ritter had demonstrated the importance of geographers studying the influence of environment in historical deve-

20. Brumhes, p. 33.

lopment his successors had brought: "regional description, compilation of statistics, and political and historical maps to a state of perfection never previously attained," yet the development of "political geography is still behind that of all other branches of our subject, and political science shows scarcely a trace of geographical influence other than that geography has placed at its disposal increasing better maps, regional studies, and areal and population statistics." That is to say, "What still remains to be done, in order to give political geography a higher status, can only be achieved by a comparative investigation of the relations between the state and the earth's surface."

Ratzel was led by the influence of evolutionary biology and therefore, he attempted to contribute the organic theory of state and society. Miss E. C. Semple eliminated the inadequacy of Ratzel's orthodox elements but the real value of his work was not affected by her modifications. She wrote "The organic theory of society and state permeates the *Anthropo-geographie*, because Ratzel formulated his principles at a time where Herbert-Spencer exercised a wide influence upon European thought. This theory, now generally abandoned by sociologists, had to be eliminated from any restatement of Ratzel's system. Though it was applied in the original often in great detail, it stood there nevertheless rather as a scaffolding around the finished edifice; and the stability of the structure after this scaffolding is removed shows how extraneous to the whole it was. The theory performed, however, a great service in impressing Ratzel's mind with the life-giving connection between land and people"²¹

Recently the geographers lacking the wisdom and exposition power of Miss Semple, reviewed the concept in a very rigid form. The organic theory of the state forms only a part of the political geography.

Ratzel's contributions to geography were very great and not the least of these was his coining of the word *Anthropo-geographie*, which later on proved to be a science of systematic study of geography, as Semple points out, "The very fecundity of his ideas often left him no time to test the validity of his principles. He enunciates one brilliant generalization after another. Sometimes he reveals the mind of a seer or poet, throwing out conclusions which are highly suggestive, on the face of them convincing, but which on examination prove untenable, or at best must be set down as unproven or needing qualification. But these were just the slag from the great furnace of his mind, slag not always worthless.

21. Semple, *Influences of Geographic Environment*, pp VI-VII

Brilliant and far-reaching as were his conclusions, he did not execute a well-ordered plan. Rather he grew with his work, and his work and its problems grew with him. He took a mountain-top view of things, kept his eyes always on the far horizon, and in the splendid sweep of his scientific conceptions sometimes overlooked the details near at hand. Herein lay his greatness and his limitation."²²

The term Anthropography has been in use since the early days of the Greeks. The term anthropography is derived out of the root words=Gr. Anthropos—man, and graphia-description. This etymological derivation is a sufficiently accurate definition of the subject. Lexicographically, anthropography is that branch of anthropology which treats of the human race according to its geographical distribution. Anthropography, with its close affiliation with anthropology, is still close to the "borderland of geography", but at first sight anthropography was naturally included in geography a few centuries ago. The new science of anthropography seems to have little liaison with anthropology, but it is hiatus arcade between anthropology and geography.

Anthropography studies man past and also present, and also his sub-human and pre-human origins, it studies man in all of its culture that is to say anthropography studies man irrespective of whether he is savage or civilized. "And it is this sort of case anthropo-geography most often has to deal. So restless has mankind been that the testimony of history and ethnology is all against the assumption that a social group has ever been subjected to but one type of environment during its long period of development from a primitive to a civilized society."²³

Anthropography deals with conditions on the earth; the distribution of people on the surface of the earth, and finally the relationship of man to the various environments. Man, in his larger activities, affects the natural environment but on the other hand the nature of human activities, the trend and limit of its development will be strongly influenced by the nature and size of its habitat. The influence of physical environment on human activities is well shown in the historic part. Time went on changing, along with the development of human mind, and the influence of man on the physical environment also went on increasing. With the coming of scientific era man became prosperous, from the resources point of view. He also created his cultural activities side by side. The distribution of population on the earth's surface is merely a manifestation of man's cultural activities, where there are plentiful natural resources, the population density is

22. *Op. Cit.*

23. *Op. Cit.*

great. At the beginning of his occupancy of the earth, he might have selected only those places where he could find innumerable resources for his livelihood. The river valleys had always been a centre of human settlement, and the advanced civilization of the world is the product of the soil of river valleys. The development of civilization depends upon an increasing exploitation of natural advantages and the development of closer interactions between a land and its people. According to Semple, "The whole complex relation of unresting man to the earth is the subject matter of anthropo-geography. The science traces his movements on the earth's surface, measures their velocity, range, and recurrence, determines their nature by the way they utilize the land, notes their transformation at different stages of economic development and under different environments."²⁴

Man has always been interested in the earth on which he lives. The curiosity of knowing about new places and the desire of finding out new sources of keeping up the existence increased this interest. If we visualise the past history, we shall find that there have always been a difference in the population and in the social, political and economical institutions. It is also seen that none of the various regions has been synonymously developed as far as natural environment is concerned. These regions gain their final and last importance because of the people who occupy them, physical features, their local conditions of soil, climate, natural resources and geographical location are important factors in the origin and development of possible inhabitants. It should be remembered that natural environments have been modified by the cultural activities, because people may react variously on natural environment. "The anthropogeographer recognizes the various social forces, economic and psychologic, which sociologists regard as the cement of societies; but he has something to add. He sees in the land occupied by a primitive tribe or a highly organised state the underlying material bond holding society together, the ultimate basis of their fundamental social activities, which are therefore derivatives from the land. He sees the common territory exercising an integrating force weak in primitive communities where the group has established only a few slight and temporary relations with its soil, so that this low social complex breaks up readily like its organic counterpart, the low animal organism found in an amoeba; he sees it growing stronger with every advance in civilization involving more complex relations to the land—with settled habitations, with increased density of population, with a discriminating and highly differentiated use of the soil, with the exploitation of mineral resources, and finally with that pre-reaching exchange of commodities and ideas which means the establishment of varied extra-territorial relations."²⁵

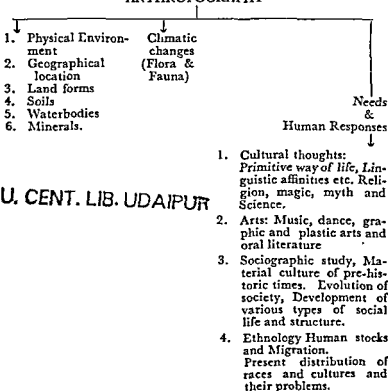
²⁴. *Op. Cit.*

²⁵. *Op. Cit.*

In the study of anthropography the description of mankind is of primary importance than a study of the shape of his head, the colour of his skin or the form of hair. Anthropography is the study of man and an anthropographer can measure the somatic qualities of the individual, "just as an understanding of animal and plant geography requires a previous knowledge of the various means of dispersal, active and passive, possessed by these lower forms of life." In the same way, "Anthropo-geography must start with a study of the movements of making."

The following table shows the elements of Anthropography:—

ANTHROPOGRAPHY



One of the most complicated problems confronting the anthropographer and that is where to place the anthropography:

among natural sciences or among social sciences? Ratzel attempted to show how the distribution of human stocks on the surface of the earth had been more or less controlled by the natural environment. His studies naturally led him to pronounce that man is the creature of environment. Man was held to be part of nature, and natural sciences focus its attention primarily on the study of inter-relations of man and his surrounding environment. The economic exploitation of the natural resources for the well-being of mankind is consequent upon scientific inventions or discoveries, *i.e.* the exploitation of such resources is correlated with scientific inventions and discoveries. Anthropography is a very vast subject, with many overlapping applications within both the social and physical sciences; anthropography may be divided into four broad sections, *viz*;

(1) Physical Anthrodography is the study of human evolution, human variation and growth, hence it is that anthropography in its aspect to become more scientific, that is to say, physical anthropography, goes naturally very near to the anthropology and biology.

(2) Ecology. Ecology is the science of the "Co-relations between all organisms living together in one and the same locality and their adaptations to their surroundings."²⁶ According to Animal Ecological Journal, "Ecology is the science of the relation of organisms to their surroundings; living as well as non-living, it is the science of the "domestic economy" of plants and animals."²⁷ According to Philosophical Society, "The descriptive study of the inter-relations between coexisting species, and, more generally, their environment, is the province of Ecology."²⁸ By definitions on the hypothetical level, ecology is mostly confined to primitive society. But on the other hand, ecology is not only confined to primitive society but also study the way of thinking, feeling and action of civilized society with relation to his environment.

(3) Sociography. Society includes two primary things, a people and its land. According to Herbert Spencer, "In societies, as in living bodies, increase of mass is habitually accompanied by increase of structure."²⁹ Sociography and Ecology touch only the inhabited regions of the earth's surface. Every society has developed into its own soil, and exploited its geographic gifts, utilized

26. E. Haeckel, *History of Creation*, Vol. II, p. 454.

27. R. Hesse, W. C. Allen & K. P. Schmidt, *Ecological Animal Geography*, p. 6.

28. A. J. Lanks, *Contact Points of Population Study with related Branches of Science*—Proceedings of the American Philosophical Society, Vol. LXXX, 1937, p. 611.

29. H. Spencer, *The Principles of Sociology*, Vol. I, p. 471.

its geographic location for the betterment of social organization. Society is more deeply rooted in the soil, the "looser is the connection between land and people, and the looser the type of social organization" Montesquieu has considered the soil in order to establish a relation between people and States.

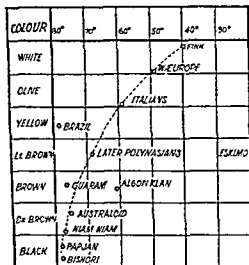
(4) Ethnography. Penniman in his book—*A Hundred Years of Anthropology*—says that Ethnography is the study of "a particular race, people or area by any or all the methods of Anthropology." In the following table the scope of Anthropography is shown graphically:—

ANTHROPOGRAPHY	{	Physical Anthropography
		(1) Study of Human Evolution.
		(2) Study of Human Variation
		(3) Study of human genetics.
		Ecology
		(1) Study of Primitive tribes.
		(2) Study of human society.
		(3) Study of Linguistics & Symbolology.
		Sociography
		(1) Study of prehistoric culture.
		(2) Study of evolution of society.
		(3) Study of the development and various forms of social life and structure.
		Ethnography
		(1) Comparative study of human stocks.
		(2) Migration of races.
		(3) Present day problems of races and culture.

The scope of Anthropography commences with the study of evolution of human beings and ends ultimately with the distribution of them on the surface of the earth, thus reflecting a diversity of human distribution patterns, because mankind must "realise a unity, wider in range, deeper in sentiment, stronger in power than ever before."³⁰ Anthropography is the science in which the drama of human life is played. As long as the earth will remain unstable, human beings will start their journey anew, in the field of anthropography to penetrate new speculations for the sake of anthropographic knowledge.

30. R. N. Tagore, *Creative Unity*, p. 170.

whole to predominate, but the wavy or curly character appears in much the same proportion as among the races of Europe. The



(After G. Taylor)

Fig. 1. A graph suggesting that skin colour generally varies with temperature. Note, however, that the order of the colour is arbitrary and several exceptions are graphed.

Andamanese have woolly or frizzly hair, oval in section and curly on itself so tightly that it seems to grow in separate spiral tufts, while in fact it is quite evenly distributed over the scalp.

The colour of the hair is also dark for most races of the world. It varies through black, dark-brown, reddish-brown, light-brown, blond, golden, and red (light, brick, or auburn). Col. G. R. Gayer used the following types—

- (1) Ultrichi-Frizzly hair—Frizzly hair are found among Negroes, Bushmen, Negritos, and Melanesians.
- (2) Leiotrichi-Straight hair. Straight hair is characteristic of the people of Central and North Asia and American Indians.
- (3) Cymtrichi-Wavy haired—(a). Australoid, (b) Ainus of Japan, (c) Polynesian, (d) Cancasoid stock. Hair and head are the most important ethnological criteria for classification according to Dr. Taylor. Figure 3 shows the distribution of head and hair indices.

Eye-hair-colour Index propounded by Dr. Collignon. The hair colour index is an expression of the Leiotrichi Hair and

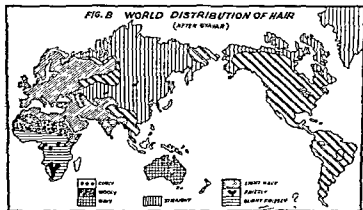


Fig. 3. World distribution of hair

(After Gayan?)

L. E. (light eyes), and Dark Hair in terms of the percentage of the eyes colour.

Formula. $\frac{(LH) + (LE)}{2} - \frac{(DH) - (DE)}{2}$ or more clearly to

obtain the Hair Index we assume that the larger diameter is 100 units and then find the shorter diameter, using the same units. On the above calculation, according to Taylor the Index runs from 40 for Negrito to 80 for Mongoloid.

Colour and shape of the eyes.

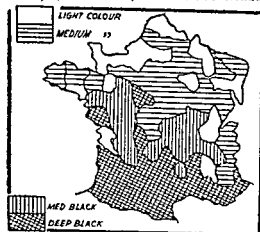
The great majority of peoples have dark-brown eyes due to pigment scattered through the iris. Dr. J. Beddoe, the recognised anthropologist of the world, has evolved a conception, known as eye-colour-Index. The pigmentation of the iris varies greatly among peoples of the world. Dr. Beddoe has made eye colour the chief basis for classification and has combined this with hair colour and skin colour. Grey eyes are common among Central Europeans by Beddoe.

Topinard finds the eye colours among the French.

His division is primarily based on the anthropometric survey of 22 departments, which has been fairly well. Fig. 4 shows the distribution of eyes colour in France.

In Indian Republic, the eyes are almost invariably dark brown. Occasional instances of grey eyes are found among the

Konkanasth Brahmans of Maharashtra and the combination of blue eyes, auburn hair, and reddish blonde complexion is met with on the North-western frontier. On the Malabar coast in the south, Mr. Thurston has noticed several instances of pale blue and grey eyes combined with a dark complexion and has even seen a Syrian Christian baby of undoubted native parentage with bright carrotty hair.



(After Timonard-A. C. Haddon)

FIG. c. Distribution of eye colour in France accepted, comprises four groups—

Tall statures	170 c. m. (5' 7") and over,
Above the average	165 c. m. (5' 5") and under 170 c. m. (5' 7")
Below the average	160 c. m. (5' 3") and under 165 c. m. (5' 5")
Small statures, under 160 c. m. (5' 3")	

Probably 95 percent peoples of the world range from 5 feet 1 inch to 5 feet 10 inches. On the whole, the distribution of stature in India and Pakistan seems to suggest that race differences play a larger part here than they do in Europe. The tallest stature are marked in Baluchistan, the Punjab, and Rajasthan, and a progressive decline may be traced down the valley of the Ganges until the lowest limit is reached among the Mongoloid people of the hills bordering on Assam. In Southern India the stature is generally lower than in the plains of the north. But there are some interesting extremes. The minimum is found among the Negritos of the Andaman Islands, whose mean stature is given by Deniker as 14.85 m. m. or 4 feet 10 inches.

Stature. Topinard's classification of stature, which is generally

Most of the English men are tall in stature and sometimes they are over six feet tall, but this is probably an excessive

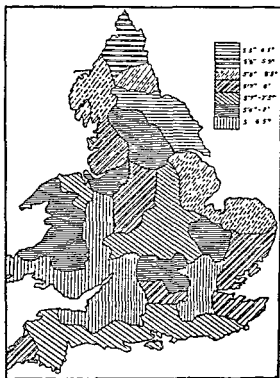


Fig. 5. Variation in height (After Gygar)

estimate. fig. 5 shows the distribution of people according to stature. Fig. 6 on next page shows the distribution of stature in Europe and adjoining regions.

Blood types Our especial attention is paid to the distribution of race. A good summary appears in the valuable pamphlet published by UNESCO. "The red colour of human blood is due to red particles which float in the transparent, strawcoloured fluid, the liquid part of the blood. As soon as blood is taken from the body and allowed to stand, it tends to congeal into a red mass called a clot. If the clot is allowed to stand for an hour or so, it contracts, and a pale yellowish fluid oozes out.

This is called blood serum. In the red blood cells are certain substance called A and B. Throughout the world, regardless of



(After Hrs F. K. Gantler)

Fig. 6. Distribution of stature in Europe

"The laws governing blood transfusion show that substances in the serum called antibodies react in certain ways with the A and B substances. For example, if serum is taken from a person in the A group, it will cause the cells of a B group person to clump together or agglutinate, when these are placed in the serum. Consequently, we say that B group persons have anti-A substance in their blood. Therefore, if cells from an A person are transfused into the circulation of a B person, the A cells will be agglutinated by the serum of the B person and may plug up some of the small blood vessels of the B person, causing shock and possibly death.

"The blood type of each person is determined by his genes. Gane produces A substance another B substance, and another no specific substance in the red blood cells. These are, therefore, called A, B and O. As you will see from the following table :—

A person of Blood group	has this substance in his red blood cells	has these anti- bodies in his blood serum	has these genes
A	A	Anti-B	AA or AO
B	B	Anti-A	BB or BO
AB	A and B	none	AB
O	None	Anti-A and Anti-B	OO

race, nationality or colour, people can be divided into four types according to the kind of substances their red blood cells contain "A", "B", A B and O. This was discovered when the technique of blood transfusion was developed, for it soon became evident that unless the blood types were compatible, transfusion could be dangerous.

Every person can be placed in one of four groups. We find that genes responsible for these groups are present throughout the world, although the proportions of these different genes differ somewhat from region to region and from race to race.

"Nowhere can we show more clearly than in the distribution of the genes which determine blood type, that human groups, whether they be called races, tribes or peoples, seem to have the same basic assortment of hereditary characters, but in different proportions. Groups that become separated have this in common, that proportion of the same kinds of hereditary elements.

"To illustrate this point, let us look at the proportions of persons belonging to different groups. The following table—shows the percentage of persons belonging to each blood group in samples of different populations—

	O	A	B	AB
American—				
U. S. Whites	45	41	10	4
U. S. Negroes	44.2	30.3	21.8	3.7
North American Indians (Sioux)	91	7	2	0
South American Indians (Toba)	98.5	1.5	0	0
South American Indians (Peru)	100	0	0	0
Australian—				
Aborigines-Western Australia	48.1	51.9	0	0
Aborigines-Queensland	58.6	37.8	3.6	0
Africa—				
Congo Negroes	46	22	24	8
Pygmies-Belgian Congo	30.6	30.3	29.1	10
Europe—				
English	46.7	41.7	8.6	3
French	42.4	46.8	8.1	4
Germans	39.1	43.5	12.5	4.9
Poles	32.5	37.6	20.9	9
Russians (Moscow Region)	31.9	34.4	24.9	8.8
Asia—				
Chinese (Yellow River)	34.2	30.8	27.7	7.3
Indonesians (Java)	51	27	18.7	3.5
Sudanese	30.1	38.4	21.9	9.7
Japanese (Tokyo Region)	27.7	31.5	30.7	10.7
Koreans	45	22	27	6
Philippinos				

These different groups of people have the same kinds of specific substances in the blood. The variety in the substances is due to variation in the genes, which probably arose by mutation. Related peoples who probably got their genes from the—

same source have similar proportions of the A and B genes. This produces the great cluster of blood group O in the American Indians, in whom B is always rare or absent, while A is also uncommon. There is a group of Indians in Peru in which all persons tested were found to be group O. Their nearest neighbours are a tribe of 90 percent group O. Probably A and B genes were lost when the first group migrated from the original tribe. Notice, too, the rise in the proportion of blood group B as we go east across Europe from England to Russia.

"Because there are distinctive frequencies in blood type among racial groups, we can use blood typing to help to classify and trace back the origins of race. In addition to the A and B or O properties of blood, science has already discovered many more blood properties and will probably find other."

The following table shows the blood group in India and Pakistan samples of different castes and tribes—

Caste or Tribe	No. of persons	Percentage of groups				Index A:B (Hirszfeld)	p q r p+q+r (Bernstein)			
		O	A	B	AB					
Baloch	74	47.2	4.3	24.3	4.2	1.00	15.5	15.5	68.7	99.7
Pathan	150	29.3	31.3	33.3	6.1	.95	20.9	22.2	54.1	97.2
Khatri	99	33.3	25.3	30.3	11.1	.88	20.3	23.5	57.7	101.5
Rajput	118	28.8	28.0	33.0	10.2	.83	24.4	28.7	53.6	106.7
Dravidian	509	24.3	27.5	36.8	11.4	.81	21.9	28.1	49.2	99.2
Jat	277	33.2	24.5	35.5	6.8	.74	17.2	24.1	57.6	98.9
U.P. Hindu	2351	30.2	24.5	37.2	8.1	.72	17.9	26.1	54.9	98.9
Blazara	100	32.0	25.0	39.0	4.0	.67	15.8	24.6	56.5	98.9
Indians—										
(Malone and										
Lahiri)	3764	32.3	26.3	33.7	7.7	.82	19.2	23.6	56.5	99.3
(Hirszfeld)	100	31.3	19.0	41.2	8.5	.56	14.9	29.1	55.9	99.9
Blais and Verholf)	348	37.9	23.0	31.6	7.5	.78	16.6	22.0	61.5	100.1

Nasal Index.

Nasal index is one of the best tests for racial distinction, we find at the top of the list a medium caste, the Jat with a nasal index of 55, indicating a very leptorhine nose, followed by the Brahman with a nasal Index of 59; third on the list, strange to say, is the Dhanuk, a Dravidian caste, with an average index of 61, the Rajput being bracketed with a Gadariya, Lohar, and with an index of 64, and the cultivated Kayasth, many grades below with an index of 67.

At the bottom of the list we find the Dravidian castes of the Korwa and Musahar, with an index of 75, and the Agariya with one of 77, all true Dravidians with more or less mesorhine noses.

The following table shows the nasal indices of the Indian caste and tribe—

Caste	Average Index	Caste	Average Index
Jat	55	Kayasth	67
Brahman	59		
Dhanuk	61	Korwa	75
Gujar	62	Musahar	
Banya	63	Agariya	77
Dhobi	64		
Rajput			
Bari			
Gadariya			
Lohar			
Mali			
Teli			
Khatik			
Kori			
Nat, etc.			

The nasal index, therefore, is simply the relation of the breadth of the nose to its height. If a man's nose is as broad as it is high—no infrequent case among the Dravidians—his index is 100. The Index, as Topinard points out in his book "*Elements de Anthropologie Generale*", expresses with great accuracy the extent to which the nostrils have been expanded and flattened out or contracted and refined, the height in the two cases varying inversely. It thus represents very distinctly the personal impressions which a particular type conveys to the observer. The broad nose of the Negro or the typical Dravidian in his most striking feature, and the index records its proportions with unimpeachable accuracy.

Where races with different nasal proportions have intermixed the Index marks the degree of crossing that has taken place; it records a large range of variations.

Broadly speaking, that the broad type of nose is most common in Madras, Madhya Pradesh and Chhota Nagpur; that fine noses in the strict sense of the term are confined to the Punjab and Kashmir, and that the population of the rest of

India tends to fall within the medium class. But the range of Index is very great. It varies in individual cases from 122 to 53, and the mean indices of different groups differ considerably in the same part of the country. According to Risely, "Between these extreme types, which may fairly be regarded as representing two distinct races, we find a large number of intermediate groups, each of which forms, for matrimonial purposes, a sharply defined circle, beyond which none of its members can pass. By applying to the entire series the nasal index or formula of the proportions of the nose, which Professors Flower and Topinard agree in regarding as the best test of race distinctions, some remarkable results are arrived at. The average nasal proportions of the Male Pahari tribe are expressed by the fig. 94.5, while the Pastoral Gujars of the Punjab have an index of 66.9, the Sikhs of 68.8, and the Bengal Brahmans and Kayasths of 70.4. In other words, the typical Dravidian, as represented by the Male Paharia, has a nose as broad in proportion to its length as the Negro, while this feature in the Aryan group can fairly bear comparison with the noses of 68 Parisians, measured by Topinard, which gave an average of 69.4."

The Head Index.

The form of the head is ascertained by measuring in a horizontal plane the greatest length from a definite point on the forehead (the glabella) to the back of the head, and the greatest breadth a little above the ears. The proportion of the breadth to the length is then expressed as a percentage called the Cephalic Index, the length being taken as 100. Heads with a breadth of 80 percent and over are classed as broad or brachycephalic; those with an index under 80, but not under 75, are called medium heads (meso- or mesticephalic); long or dolichocephalic heads are those in which the ratio of breadth to length is below 75 percent.

The cephalic Index is an expression of the breadth of the head or skull in terms of percentage of the length. Formula—

$$\frac{B \times 100}{L} \text{ or most clearly cephalic Index} =$$

$$\frac{\text{Maximum breadth}}{\text{Max. Length}} \times 100 \text{ Example} = \frac{160}{187} \times 100 = 87$$

Head shape has been arbitrarily classified, on the basis of the cephalic Index, into three categories as follows—

	Dry Skull	Living head
Dolichocephalic or long headed (D)	x—74.99	x—76.99
Mesocephalic or mid-headed (M)	75.00—79.99	77.00—81.99
Brachycephalic or round headed (B)	80.00—x	82.00—x

This procedure, which gives not only the absolute dimensions of body parts but also some indication of form, has been applied to numerous other ratios on the skull as well as on the skeleton and has since become a dominant feature of anthropological research. The method is being applied not only to skeletal material but also to the living, anthropometric descriptions of types have become the rule. The length—breadth index has a great taxonomic value in distinguishing local varieties of man; it can be determined with great accuracy on the living, and the values obtained on the living and on skeletal material are nearly identical. For this reason this index has gained particular currency as an identifying mark of racial types. It gives a numerical value for striking differences in the appearance of head or skull as seen from above.

The facial Angle.

The facial angle is one of the best tests for racial distinction. In looking at the table given at the end of this section it will be seen that the Manjhi, a true Dravidian, has the highest angle, i. e. 70, closely followed by the Dhangar, another caste of the same class, with one of 69, the aristocratic Brahman and Rajput ranking sixth on the list with the same average angle as the Dravidian Chamar. The vermin eating Musahar comes at the bottom of the list with an average angle of 62.

Table of Facial Index

Caste	Average Index	Caste	Average Index
Manjhi	70	Darzi	67
Dhangar	69	Mali	
Arakh	68	Kol	
Bauriya		Banjara	66
Agariya		Barhai	
Bhuiyar		Brahman	65
Bhurtiya		Rajput	
Chero		Chamar	62
Kharwar		Musahar	
Parka	67		
Karor			

These physical data enable us to divide the people of the world into three main physical types. The following table shows the physical characteristics of the three main races of the world :

Trait	Caucasoid	Mongoloid	Negroid
Skin			
Colour	Pale reddish white to olive brown, some dark brown	Pale yellow to yellow brown some reddish brown	Brown to Brown-black; some yellow-brown
Stature	Medium to tall	Medium tall to medium short	Tall to very short.
Head form	Long to broad and short; medium high to very high	Predominantly broad; height medium	Predominantly long height low to medium.
Face	Narrow to medium broad; no projecting jaw.	Medium broad to broad, cheek bones high and flat	Medium broad to narrow; frequent projecting jaws.
Hair	Head hair: colour light blond to dark brown; Texture fine to medium, from straight to wavy. body hair: moderate to profuse	Head Hair: colour brown-black, texture coarse; form straight. Body hair-Sparse	Head hair. colour brown-black; texture coarse; form light curl to woolly or fizzy. Body hair: slight
Eye:	Colour: light blue to dark brown; occasional side eye-fold.	Colour Brown to dark brown, fold of flesh in inner corner very common.	Colour brown to brown-black; vertical eye-fold common.
Nose	Bridge usually high form narrow to medium broad	Bridge usually low to medium; form medium broad.	Bridge usually low; form medium broad to very broad
Body build	Slim to broad slender to rugged	Tends to be broad; occasional slimness	Tends to be broad and muscular, but occasional slimness.

CHAPTER III

MANKIND SO FAR

THE origin of man has been a mystery from the time when the science of anthropology took roots in the soil—the scientific minds. Opinion as to the genesis of man is divided and controversial. The topic of the origin of man is held by two schools of thought in the science of biology, *viz.*, the school of creation and that of evolution. On both the theories here concerned it would be admitted, in the words of Agassiz, "there is a manifest progress in the succession of beings on the surface of the earth. This progress consists in an increasing similarity of the living fauna, and, among the vertebrates especially, in their increasing resemblance to man." Agassiz continues, however, in terms characteristic of the creationist school. "But this connection is not the consequence of a direct lineage between the faunas of different ages. There is nothing like parental descent connecting them. The fishes of the Palaeozoic age are in no respect the ancestors of the reptiles of the secondary age, nor does man descend from the mammals which preceded him in the Tertiary age. The link by which they are connected is of a higher and immaterial nature; and their connection is to be sought in the view of the creator himself, whose aim in forming the earth, in allowing it to undergo the successive changes which geology has pointed out, and in creating successively all the different types of animals which have passed away, was to introduce man upon the surface of our globe. Man is the end towards which all the animal creation has tended from the first appearance of the first Palaeozoic fishes."¹

The Evolutionist school, on the contrary, maintains that different successive species of animals are in fact connected by parental descent, having become modified in the course of successive generations. The result of Darwin's application of this theory to man may be given in his own words. "The catarrhine and Platyrrhine monkeys agree in a multitude of characters, as is shown by their unquestionably belonging to one or the same order. The many characters which they possess in common can hardly have been independently acquired by so many distinct species; so that these characters must have been inherited. But

an ancient form which possessed many characters common to the Catarrhine and Platyrrhine monkeys, and others in an intermediate condition, and some few perhaps distinct from those now present in either form, would undoubtedly have been ranked, if seen by a naturalist, as an ape or a monkey. And as man under a genealogical point of view belongs to the Catarrhine or old world stock, we must conclude however much the conclusion may revolt our pride, that our early progenitors would have been properly thus designated. But we must not fall into the error of supposing that the early progenitor of the whole Simian stock, including man, was identical with, or even closely resembled, any existing ape or monkey.¹

The term race, from the biological standpoint, designates the group of populations, who possess almost pronounced traits of the group considered such as physical traits, linguistic, religious, cultural and geographical groups, or even nations have, in such loose sense been called race, but at the same time differing from other groups of human beings in the same respects. But no hard and fast rule can be laid down to classify the human stock into definite groups. Whatever be the definition, but a race is a population having the unity of mankind from both social and biological viewpoints is the main thing, as Charles Darwin observes, "As man advances in civilisation, the small tribes are united into larger communities, the simplest reason would tell each individual that he ought to extend his social instincts and sympathies to all the members of the same nation, though personally unknown to him. This point being once reached, there is only an artificial barrier to prevent his sympathies extending to the men of all nations and races."² Human races can be and have been variously classified by different raciologists and anthropologists. During the 18th century various systematic arrangements of human races were made by anthropologists. Now we consider the different racial classifications which have been proposed in the past. Let us traverse rapidly through the history of racial classification which has been framed by Linnaean. Linnaean considered the human races as varieties derived from the "primates of genus *Homo Sapiens*," which he divided into six sub-groups. His divisions were 1. *Homoferus*. 2. *Americanus*. 3. *Europaeus*. 4. *Asiaticus*. 5. *Afer*. 6. *Monstrosus*. The first and the last of the above mentioned groups may be worthless because the "first is nonexistent, the last is pathological." The others are representatives of human settlements inhabiting in the four large continents, such as *Americanus* in America, *Europaeus* in Europe,

1. Charles Darwin, *Descent of Man* pt. 1 Chapter 6

2. Op Cit pp 149-151

Asiaticus in Asia, and Africa by Afer. But "it is interesting to note that in description of each race mental traits are included as biological characteristics."

Cuvier divided the human groups into three races: 1. Caucasian (White), 2. Mongol (Yellow), 3. Negro (Black). Blumenbach's division; though published about 1781; has had the greatest influence. His divisions are based on distinctions of colour, hair and features and shape of skull and face. Blumenbach distinguished five races, viz., 1. Caucasian, 2. Mongolian, 3. Ethiopian, 4. American, 5. Malyan. He brings the Arabs and Swedes into one race, i. e. Caucasian or white. But two best marked varieties of mankind are Australians and Bushmen which have been totally avoided by Blumenbach.

Huxley classified the human stock into five races.⁴ These are: 1. Australoid. 2. Negroid. 3. Mongoloid. 4. Xanthochroic. 5. Melanochroic.

1. The Australoid. The type is best represented by the natives of Australia, and south Indian tribes. Physically they are "chocolate brown skin, dark brown or black eyes, black hair (usually wavy), narrow (dolichocephalic) skull, brow ridges strongly developed, projecting jaw, coarse lips, and broad nose."

2. Negroid. They vary in skin colour from dark brown to black, eyes are dark and hair usually black and woolly. Physically the skull "is narrow (dolichocephalic), with orbital ridges not prominent, prognathous, with depressed nasal bones, causing the nose to be flat as well as broad; and lips are coarse and projecting." They are mostly confined in the desert of Sahara, Madagascar, and Cape districts of South Africa and represented by Negros of Africa. Negroids are sub-divided into two sub-groups. (a) Bushmen of South Africa, with a yellowish brown skin colour, short in stature, frizzly hair growth on the head. According to Huxley the racial mixture of Bushmen with ordinary Negroid, resulted in a slightly taller people called Hottentots, who possess a longer and narrower head and a more protruding face. The Hottentots formerly inhabited the western part of South Africa, but their tribal organisation is preserved at present only in south-western Africa. (b) The Negritos of Andaman Islands, the peninsular Malaca, the Philippines etc. :—

They are mostly dolichocephals, with a dark to black skin colour and possess woolly and somewhat frizzly hair.

4. Journal of Ethnological Society, Vol. II. pp. 404.

3. **The Mongoloid Type.** This type is represented by dolichocephalic Chinese and Japanese etc. They are short to medium in stature, with black eyes, the hair growth is scanty, skin colour varies from yellowish to brown, with flat nose and face and a great development of the typical Mongoloid fold of the eye.

4. **Xanthochroic.** (Fair white) They are generally tall in stature, with almost colourless skin, "blue or grey eyes, hair from straw colour to chestnut, skull varying as to proportionate width." They are mostly confined to the areas of North Europe, North Africa and eastwards as far as India.

5. **Melanochroi or Dark Whites.** Physically they are shorter in stature, brownish to olive in skin colour, and the hair as well as eyes are dark coloured. They mostly inhabit the South of Europe and Arabia and best represented by Spaniards, Greeks and Arabians. Melanochroi, nearly the same as the Mediterraneaners, but supposed by Huxley to be hybrids between the Xanthochroi and the Australoids.

Classification of races on physical traits has long been attempted by eminent anatomists and raciologists, such as Fritsch, Stratz etc., Fritsch distinguished three fundamental races and derived from these metamorph or mixed races. Stratz distinguished mankind according to cultural viewpoints, such as 1. The Protomorph races, 2. Archimorph, 3. Metamorph.

Duckworth, on the basis of cephalic index, divided mankind into seven races. These are :— 1. Australians, 2. Andamanese, 3. Eurasiatics, 4. Polynesians, 5. Greenlandish, 6. South Africans and 7. African Negro. The types of Europe have been described in peculiar details.

G. Elliot Smith divided mankind into six races such as 1. Australian, 2. Negro, 3. Mongol, 4. Nordic, 5. Alpine and 6. Mediterranean. Ripley's divisions on the blue-eyed tall Nordic, the darker, short-headed Alpine and the short, long headed Mediterranean is still much used by anthropologists. These all classifications are based "partly on morphological traits and partly on geographical locations."

The later attempt at a detailed and finer division was made in 1889 by Deniker, a Russian born French anthropologist. Deniker established six grand divisions, 17 minor divisions into 29 separate races.

DENIKER'S CLASSIFICATION

- | | |
|--|-------------------------------------|
| A. Hair woolly, with broad nose | Negroid |
| I. (i) Bushman | |
| II. Negroid | |
| (ii) Negrito | |
| (iii) Negro | |
| (iv) Melanesian (including Papuan.) | |
| B. Hair curly to wavy | Negroid to Caucasoid |
| III. (v) Ethiopian (Sudan etc.) | East African |
| IV. (vi) Australian | |
| V. (vii) Dravidian (South India) | Veddoid |
| VI. (viii) Assyroid (Kurds, Armenians, Jews) | Armenoid. |
| C. Hair wavy. | Dark Caucasoid |
| VII. (ix) Indo-Afghan | Hindu. |
| VIII. North Africa | |
| (x) Arab or Semite | East Mediterranean |
| (xi) Berber (North Africa) | Mediterranean |
| IX. Melanochroid | |
| (xii) Littoral (Atlanto-Medit.) | Mediterranean |
| (xiii) Ibero-insular (Spain, South Italy) | Mediterranean. |
| (xiv) Western European | Alpine |
| (xv) Adriatic (N. Italy and Balkans) | Dinaric |
| D. Hair wavy to straight, with light eyes | Fair Caucasoid |
| X. Vanthochroid | |
| (xvi) North European | Nordic |
| (xvii) East European | East Baltic |
| E. Hair wavy to straight with dark eyes | Caucasoid to Mongoloid (Sub-Nordic) |
| XI. (xviii) Ainu | |
| XII. Oceanian | |
| (xix) Polynesian | |
| (xx) Indonesian (East Indies) | |
| F. Straight Hair | Mongoloid |
| XIII. American | |

- (xxi) South American
- (xxii) North American
- (xxiii) Central American
- (xxiv) Patagonian

XIV.

- (xxv) Eskimo

XV. (xxvi) Lapp

XVI. Eurasian

- (xxvii) Ugrian (Eastern Russia)
- (xxviii) Turco-Tartar (South-western Siberia.)

XVII. (xxix) Mongol (East Asia)

Deniker's divisions are based on distinction of colour or hair, form of hair and descriptive features of face.

The classification framed in 1922 by Roland Dixon in "The Racial History of Man," is based on skull measurements, but does not use the geographical distribution as a factor in his classification. He recognises the following main races of the world :—



Fig. 1. Racial classification according to Dixon
(shown briefly)

1. *Pala-Alpine* or *Negrito*. They are generally broad headed with high skull, and mostly confined in Philippines, Burma, etc.

2. *Mongoloid* or *Primitive Alpine*. Mostly represented by Lapps of Finland, and Bushmen of Kalahari desert.

3. *Proto-Negroid*. They are confined mainly in Brazil, represented by Papuas and Gaboon etc.

4. *Pito-Australoid*. Physically they are jet black, wavy or curly hair and a long head, and they mostly inhabit California, Australia and Sicily etc.

5. *Caspian*. Tall statured, blue eyes, long headed, with light complexion and at present they are inhabiting Russia, Sardinia and Japan.

6. *Mediterranean*. This race is exemplified by Indians, Californians and Egyptians.

7. *Alpine*. A typical member of this group possesses a fairly dark complexion, a broad face, brown wavy hair and extend from the Central plateau of France, Czechoslovakia and westwards into Hawaii islands.

Ural-Alpine. This race is typified by a low skull medium to broad head, nasal index of 44. The representation of this race is made by population such as Swiss, Venezuelans etc.

Haddon, in 1924, has made hair the chief basis of classification, and has combined this with stature, skin colour and on cephalic index.

I. *Mediterranean*. "Most moderately dolichocephalic folk have brown to white skins, thin noses, and wavy hair. They have no very definite climatic environment but range throughout the tropical and temperate regions. It is this great range of migration which has prevented their common origin and real physical similarity from being recognized."

II. *Alpine*. "Broad headed folk nearly all have white to light-brown skins, wavy or straight hair, and live in temperate lands."

III. *Negritoes*. "Very long headed folk, broad nosed, nearly all have dark skins, frizzly hair, and live in the tropics."

IV. *Mongol*. The stature varies from short to medium, well developed epicanthic eyefold. The hair growth on the head is scanty, but the hair form remains straight.

V. Pre-Dravidian. They are long headed folk, dark to black skin colour.

VI. Caucasian People. This group described by Haddon in peculiar detail, which has been divided into the following subgroups: 1. Mediterranean, 2. Nordics, 3. Alpine.

Haddon's classification of the world races has been shown in the tabular form as follows:—

Woolly Haired	Straight	Wavy Haired
1. African Negroids.	3. Mongols.	7. Pre-Dravidian and Australoids.
African Negritos.	4. Polynesians.	8. Caucasian
2. Oceanic Negroes.	5. North Mongols.	a. Mediterranean.
Oceanic Negritos.	6. Amerinds.	b. Nordic-Afghans.
		c. Alpine, Dinarics.

THE CZEKANOWSKI'S CLASSIFICATION

Czekanowski recognises two major races, viz., Black and Yellow race, and adding the third and fourth varieties white transitional to black, and Yellow race transitional to white.

BLACK RACE

Pygmy.

Bushman (Negroidal)

Congo Negro (Austro-African.)

Sudan Negro (Negritian)

Australoid: Wavy haired, with many primitive traits, white race, transitional to black.

Indic (Mediterranoid)

East African; North and west of the Mediterranean sea.

Armenoid.

Nordic.

YELLOW RACE TRANSITIONAL TO WHITE

North Asiatic (Palæo Asiatic) Siberian Sub-Mongoloids including Ainu.

YELLOW RACE

Lapponoid

Central Asiatic.

East Asiatic. (Pacific) Taller than the last, less brachycephalic, Chinese type.

Eskimoid (Arctic)

Palaeo-American—A long headed, chiefly in South America allied to the pre-historic Lagoa Santa Skeletal type.

The most recent attempt at a detailed phylogenetic classification is that of Hooton. His efforts of classification are based on purely anatomical characteristics, except in so far as physical traits are sometimes brought in as of secondary importance. Hooton recognises three primary races corresponding to the usual primary stocks. Hooton distinguished white or Caucasoid, Negroid and Mongoloid into 23 primary sub-races, and certain of these sub-races viz., Mediterranean, Australian, Indo-Dravidian, Negrito, Malynesian, Indonesian and American, are again subdivided sometimes into morphological traits. His divisions are—

WHITE OR CAUCASOID PRIMARY RACE

1. Mediterranean.
 - a. Upper Palaeolithic survivals, chiefly in British Isles.
 - b. Iranian Plateau.
 - c. Classic Mediterranean.
2. Ainu.
3. Keltic (light eyed, dark or red haired, mainly in Br. Isles.)
4. Nordic.
5. Alpine.
6. East Baltic.
7. Armenoid.
8. Dinaric.
9. Nordic-Alpine.
10. Nordic-Mediterranean.

COMPOSITE, PREDOMINANTLY WHITE

11. Australian.
 - a. Murrian, most nearly white, specially in south east.
 - b. Carpentarian, Melanesian increment in the north.
 - c. Tasmanoid; refuge areas in Queensland.
12. Indo-Dravidian (classic Medit., Australoid, Negrito)
 - a. Classic Indo-Dravidian, mostly in northern India.
 - b. Armenoid-Iranian plateau: western and south-eastern India.

- c. Indo-Nordic.—North = western Himalayas.
- d. Australoid or Veddoid—Central and Southern India.
- e. Negritoid—spots in Southern India.

13. Polynesian.

NEGROID PRIMARY RACE

- 14. African Negro or Forest Negro.
- 15. Nilotic Negro.
- 16. Negrito.
 - a. Infantile type, in all Negrito populations.
 - b. Adultiform, among all Negritos, except, in the Andamans and Philippines.

COMPOSITE PREDOMINANTLY NEGROID

- 17. Tasmanian : Negrito plus Australians.
- 18. Maltesian : Papuan, Negrito, Australoid.
 - a. Papuan.
 - b. Melanesian.
- 19. Bushmen Hottentots.
 - a. Bushmen.
 - b. Hottentot, Bushmen plus Negro.

MONGOLOID PRIMARY RACE :

- 20. Classic Mongoloid.
- 21. Asiatic Mongoloid or Eskimoid.
- 22. Indonesian.
 - a. Maly-Mongoloid (Indonesia and farther India, including most of the Japanese)
 - b. Indonesian (pre-Mongoloid groups in South China, further India.)
- 23. American-Indian.
 - a. Brachycephala.
 - b. Dolichocephala.

(See the accompanying chart of Hooton's classification for detailed descriptions).

G. TAYLOR'S CLASSIFICATION

Cephalic Index and other physical traits are the characteristic features of Taylor's racial classification, as is shown in the table given below :—

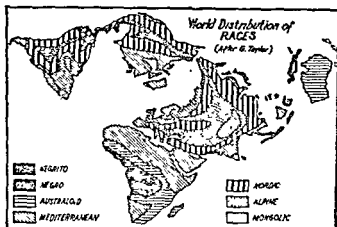


Fig. 2 World Distribution of Races—After G. Taylor (used by permission of the author).

Race	Criteria			Habitat
	Head Index	Hair	Skin colour	
Latest Migrations (Late Alpine-Mongolian)	88-83	Straight	Light-brown, white and yellow.	Central Zone and higher stratum, extends from Swiss Alps to Manchuria.
Early Alpine Mongolian	83-80	Straight and wavy	—do—	2nd zone and 2nd stratum in cradle-land, covers most of Asia and Central Europe
Mediterranean	80-77	Wavy to curly.	Light brown to white	North Africa, S. Asia, fringe in N. Eurasia.
Australoid.	76-73	—do—	Dark brown to black.	Marginal zones in peninsular India & Australia.
Negro.	74-70	Frizzly	Black to chocolate	South Africa and Melanesia
Negrito.	about 80	—do—	Usually Black	Inaccessible forests of S.E. Asia and Africa.

Hooton's Classification-

Primary Stocks and Races	Skin Colour	Hair Colour	Eye Colour	Hair Form	Head Form
White or Caucasoid	Light brown	Black	Never black	Wavy or straight	...
1. Mediterranean	...	dark brown to black	dark brown to brown	...	cephalic Index less than 80
A. Upper Palaeolithic or Atlanto-Mediterranean	generally dark	...	...	very wavy or curly	dolichcephalic
B. Iranian Plateau or Indo-Afghan	...	...	...	...	...
C. Classic Mediterranean	...	...	...	...	...
2. Ainu	light brown or greyish	dark brown to black	dark to brown	...	cephalic Index less than 80
3. Celtic	Pale-white often freckled	dark brown	blue or pale mixed	grey wavy or curly	C. I. less than 80
4. Nordic	usually pink or ruddy	golden	blue or grey	wavy or straight	C. I. less than 80
5. Alpine	olive or bronzet white	dark brown	dark brown	.	globular head or (over 80)
6. East Baltic	creamy or ivory white	golden	grey, light-blue	straight	C. I. over 80
7. Armenoid	olive	dark brown to black	dark brown to brown	wavy or curly	C. I. over 80

of world Races.—(Contd.)

Nose Form	Face Form	Stature	Distribution	Remarks
usually higher	...	...	...	Buttocks usually prominent amongst females & Breasts hemispherical amongst women.
...
usually straight	often very long	usually tall	Sporadic in refuge areas of Europe and the Middle East, common in Ireland, Scotland, Wales.	...
High, broad or medium	.	usually medium	Mostly in Iran and Iraq.	...
...	Face narrow and oval	usually under 166 cm.	Arabia, Near East, whole Mediterranean basin, sporadically in Eastern, central & northwestern Europe.	..
root depressed and concave profile	short to medium	short or average 158 cm.	North Japan, Sakhalin and Yezo	Mongoloid admixture may be detected in females.
very long	long narrow	Tall	Ireland, Scottish highlands, Wales, western Europe	long arms and legs, short trunk.
High and narrow		Tall	Scandinavia, Sweden, Baltic and Britain	...
Nasal Index 63	broad and short	medium to short	Central Zone of Europe and France, Urals, Norway, Near East, North-west Africa.	...
N. I. over 63	...	...	Finland, Russia, Poland and Baltic countries	wavy head hair, sparse body hair
N. I. under 63	Narrow and elongated	medium	Turkey, Syria, Palestine, Iraq and Balkan countries.	...

Hooton's classification-

Primary Stocks and Races	Skin Colour	Hair Colour	Eye Colour	Hair Form	Head Form
8. Dinaric	variable	medium to dark brown	brown to light	usually wavy	C. I. 80 and over
9. Nordic Alpine	...	dark	dark	red hair	C. I. over 80
10. Nordic Mediterranean	...	dark	light	...	C. I. under 80
11. Australian	chocolate	dark brown	dark brown	curly	usually 80
(a) Murrian	light red brown	...	dark brown	wavy	over 80
(b) Carpenterian	dark	...	dark brown	..	...
(c) Tasmanoid	darker	dark brown	...	smaller	...
12. Indo Dravidian	dark brown	black	dark brown	Frizzly	C. I. under 80
(a) Classi Indo-dravidian	...	...	...	Straight	C. I. 74 3
(b) Armenoid (Iranian)	Pale-white	...	...	Straight	average 81.8
(c) Indo-Nordic	rosy white	dark brown	grey or blue	Straight	C. I. 79 1.
(d) Australoid	chocolate brown	...	...	wavy to curly	dolichoccephalic
(e) Negroid	black	dark brown	...	Frizzly	long
13. Polynesian	yellow brown	dark	...	wavy	C. I. 80
Negroid	black	dark brown	dark brown	Frizzly	dolichoccephalic

of world Races.—(Contd.)

Nose Form	Face Form	Stature	Distribution	Remarks
N. I. under 63	much longer	very Tall (over 170 cm.)	British Isles, Yugoslavia, Central European countries.	Lips thinner than the Armenoids.
N. I. 63	U. S. A. and Irish states	...
...	...	under 170 cm.	Ireland and U. S. A.	...
under 85	Facial Index under 90	average 160 cm.	..	...
longer	South Australia and Queensland.	...
...	...	Tall	N. Australia, and Gulf of Carpentaria	...
...	...	Short	Queensland and Tropical Forest of Tasmania	Small Bant.
...	leptoprosopic	variable	India and Ceylon.	...
N. I. 73	...	Short	Panjab.	...
long (69.8)	...	medium	western Littoral and Bengal	...
N. I. 67.1	...	medium	N. W. Himalayas, Pakistan and Afghanistan.	...
chomal-rhine	...	short	Central and Southern India.	Represented by Bhils and Chenchus.
...	...	short	Southern India (Kadar and Pulayans).	Thick everted lips
...	...	over 167	Newzealand, Hawaii, Thailand, Indochina and Philippines Islands.	...
Naval Index 85	...	Short	...	Breast form Conical and buttocks usually less projecting among female.

Hooton's classification-

Primary Stocks and Races	Skin Colour	Hair Colour	Eye Colour	Hair Form	Head Form
14. African Negro	...	...	...	...	...
15. Nilotic Negro	black or bluish black	...	...	...	cephalic Index under 76
16. Negrito	yellowish or brown	black	...	woolly	...
(a) Infantile	dark brown	...	...	...	over 80
(b) Adult form	greyish yellow	...	light brown	...	mesocephalic
17. Tasmanian	Black or dark brown	black	...	Frizzly	cephalic Index under 76
18. Melanesian	dark brown or black	black or 'fory'	dark brown to black	Frazily	...
(a) Papuan	nearly black	dark brown	...	Frizzly	...
(b) Melanesian	...	...	...	Frizzly	mesocephalic
19. Bushmen-Hottentot	yellow to yellow brown	Black	Dark brown to black	Tiny or peppercorn	dolichocephalic or under 78
(a) Bushmen	yellow to brown	...	...	...	C. I. over 79
(b) Hottentot	yellowish to brown	...	...	...	cephalic under 79

of world Races.—(Contd.)

Nose Form	Face Form	Stature	Distribution	Remarks
...	...	variable 165 to 170 cm.	Sudanese, Bantu in west and central Africa and South Africa except Shari	...
Platyrrhine	...	over 170 cm.	Upper waters of white Nile	...
...	...	less than 150 cm.	...	...
narrow at root	Short to broad	somewhat Tall	Congo Forests, Anda- man Islands, Malay Peninsula, Philippines and New Guinea.	...
...	long and narrow	...	Congo Forest area, New Guinea, and Malaya Peninsula.	Broad shoul- dered, broad and high pelvis, short legs & long arms.
...	Euryprosop- ic	...	Tasmania and Australia	well developed muscular & prominent but- tocks and abdo- men slender lumps
Hypercha- maethine	...	Low less than 165 cm.	...	Elongation of forearms & long- legs.
chamaeth- ine	...	...	New Guinea and Islands of Melanesia.	...
...	...	...	Melanesian islands, New Guinea and other Coastal regions	...
Nasal Index 85	...	under 160 cm.	...	Buttocks-marked & steatopygia in females.
...	...	average 144 cm.	Kalabari Desert, South Africa	...
...	Elongated	receding 150 cm.	South west Africa and formerly in Cape Colony	Steatopygia more pronounc- ed in female.

Hooton's classification-

Primary Stocks and Races	Skin Colour	Hair Colour	Eye Colour	Hair Form	Head Form
20. Classi Mongoloid	yellow to brown	black	dark brown	Straight	...
21. Arctic Mongoloid	...	...	...	...	C. I. less than 80
22. Indonesian	dark to yellow brown	black	dark brown	Straight	...
(a) Malay-Mongoloid	light yellow brown	...	...	Straight	cephalic Index over 80
(b) Indonesian	light red brown	...	...	wavy	C. I. under 80
23. American Indian	yellow to brown or red brown	black rarely dark	dark brown to blue	Straight coarse and wavy	...
(a) Brachycephalic	...	...	...	...	Cephalic Index 80 or over
(b) Dolichocephalic	..	...	..	...	Cephalic Index under 80

(Used by the permission of the publishers, M/s.

of world Races.—(Contd.)

Nose Form	Face Form	Stature	Distribution	Remarks
...	...	...	...	Epicanthic fold.
Nasal Index 70	very broad	under 150 cm.	North East Asia, Arctic regions of North America	Epicanthic fold not found in adult males.
Nasal Index 80	...	under 165 cm.	...	...
...	Narrow	..	Indochina, Burma, Indo- nesia, Philippines, Thailand, Malaya Archipelago.	...
...	..	...	Indonesia, Burma, Thailand, and Malay peninsula.	...
*Nasal Index over 85	...	...	...	External eye- fold common.
...	...	...	Sporadic in the N. American area, central and Southern America.	...
...	...	...	Canada, U. S. A. and New world.	...

(Macmillan & Co., New York. Copy right 1931)

Leaving the general classification of people, let us consider in some detail the constitution of races inhabiting the different continents.

RACES OF AMERICA

Before the advent of European peoples, the population of the Americas consisted of aborigines, called Indians. From historical point of view, they are the true Americans. But it is customary to classify the American Indians into two ways—either they are regarded as Mongoloid stock or they are separated as a sub-race of the American race. They entered the new world possibly 15,000 years ago or even more remotely, in a series of migration, extending over many years. "Small groups probably crossed the Bearing Strait, either because of pressure from hostile tribes or in search of new hunting ground. Travelling south and east, they gradually spread over north, central and southern America." According to Taylor's migration zone Theory of Race Evolution, all the races had had their origin in Central Asia..



Fig. 3. Migration—Zone classification of the Races of Man
Geographical Review New York 1919.
(after G. Taylor).

(Used by the permission of the Editor—Geog. Review, N. Y.)

Later on the racial stocks had to migrate to other parts of the world. It has been established by Taylor that due to the existence of land bridges connecting one part of the earth with the other, which is best exemplified by the Bearing Strait, the races

had the convenience to move from one part of the earth and step into the other. The American Indians, having most of the physical features as those of Mongoloids, would have crossed the Bering Strait and settled in the Americas. The physical characters of the American Indians consist of a brown skin with yellowish tinge, dark eyes, straight, coarse, black hair and a broad face with high and prominent cheek bones. The stature varies in different groups, the tallest people inhabiting the region of Mississippi valley and extended for some distance to the north and east.

According to Haddon the following racial elements are the characterising features of Americans :—

1. Paleo-Amerind. They possess lighter skin, medium stature, with long arms.
2. Eskimos. They resemble with Mongoloids.
3. North Amerind. The skin colour varies from light to reddish, narrow noses, which are frequently concave in shape.
4. Neo-Amerind. They inhabit the northern western coast. The tribes of this region, generally are light to yellowish in skin colour, with a short to medium stature, apparently are closely allied to the native of north-western Asia. The cephalic index of the Neo-Amerind, according to Haddon, varies from 82 to 88.

The study of the peoples of South America is beset with numerous difficulties and presents many complex problems. According to Taylor, "Today South America offers the best laboratory for testing race mixture. The southern states are the most progressive, and are colonised most largely by European settlers. Yet we must not neglect the climatic factor. The northern states may be less progressive, primarily because their climate varies little, and in large areas is too hot to permit of energetic development."¹

The Indians of South America bear, in general, the physical features common to the whole race.

RACES OF AFRICA

Africa is the most complicated continent as regards the distribution of people of different races. The Continent of Africa covers an area of about 12,00,000 square miles, and contains diverse, ethnological characters. G. Taylor derived two principal races.² These are, (1) *Pre-Negro*, subdivided into the Bushmen, Hottentots, the African Pygmies or Negritos the African

1. Taylor, *Environment, Race & Migration*, p. 253.
2. p. 124—144

extends across Central Africa. There are, however, groups of true Pygmies, the most typical of which are the Wambutti of the Ituri forests in the Belgian Congo. Physically they are short in stature, their skin colour varies from light brown with a yellowish tinge to a very dark chocolate colour. The colour of the hair is dark but the hair form is straight. The shape of the head is typically round, the nose flattened at the root. The body and legs are short.

THE NEGROES OF AFRICA

The African Negroes may be classified according to their physical traits, into the following groups :—

1. The True Negro, who have also been called the western Sudanese. The west African coastal Negro is long headed, tall in stature, in all Negroes the face is usually broad and projecting chin. The nose is broad and lips are everted and thick.

2. Nilotic Negroes. In order to account for this type, which is generally called as Negroes of Upper Nile, they are extremely taller than their contemporaries in Sudan. They are generally dolichocephalia. The racial affinities of Nilotic Negroes are not well understood, but according to some anthropologists, that, "migratory waves of people called Hamites, have been penetrating in north-east Africa from a remote time, long before the period of recorded history. It is thought also that the crossing of these Hamitic intruders with the true Negroes, produced the Nilotic type." The Negroes of upper Nile valley are dark in skin colour, but due to interbreeding with Hamitic the skin colour varied from light to light brown.

3. The Negroes of North East Africa—The best representatives of this group are the Suk, the Masai, and the Nandi etc. which are mainly confined to Kenya colony. Physically they are tall in stature, and have refined nose and mouth. They are mostly dolichocephalic.

The Bantu Negroes—The Bantus are greatly concentrated south of Zambi. On the eastern coast in the Zanzibar, the Bantus have mingled with the Arabs. A girl in the Bantu community tattoos her lips with vertical lines. Physically they are short in stature. Head is broad, nose is more prominent and narrow.

The Neanderthal Negroes—No living races had descended from the Neanderthal man and perhaps the Neanderthal man had died.⁷ According to Sarasin the living Negroes are "more primitive than the Neanderthal type" Von Eickstedt also corroborates the viewpoint of the former writer, "the Auringanacians of

⁷ M. Nestorukh, *Origin of Man*, p. 521.

Europe show a great similarity with recent Australoids and the resemblance also obtains with Neanderthal man, but to a less degree. The Aurignacians are some, much less primitive than the Australoids, as regards prognathism, face, and skull-base, but are extraordinarily alike as regards the body shape, length of skull, shape of chin, etc."

THE HIGHER RACES OF AFRICA

They are generally assumed to be the hybrids between the native Negroes of Africa and the Mediterranean immigrants. The cross between the Mediterranean and Negroes does not become an average of two types, but produces a great diversity of physical feature. The Mediterraneans first occupied Upper Egypt, and later on spread southwards and according to Petrie, "these Alpine peoples conquered by ability, not by number or mere force,..... for even in their capital they were not more than one-tenth of men around." The Alpine racial stock first settled in northern Africa. Later on the ivory trade attracted the white stocks southwards. Minerals are the chief sources of attraction to white people to descend down. The most important racial group in Africa is Hamites. They are dark brown to black in skin colour, the colour of the hair is also dark. The stature is tall to medium. According to Dr. Henry Field, "The typical Hamite possesses a long head, an oval, elongated face with no forward protrusion, thin lips, pointed chin and a prominent, well-shaped, narrow nose."⁸ The second important group, according to Dr. Henry Field, is Semites. and the physical traits of Hamites resemble with those of semites. The words Semitic and Hamitic have a definite linguistic group in the minds of raciologists. The two languages, many dialects having constituted it were long ago split off from original Hemitico-Semitic stock

RACES OF EUROPE

Geographically the inhabitants of Europe can be divided into three groups.

1. The Southern European or Mediterranean They are short in stature, dark hair and eyes, long head, narrow oval face. This group is now mostly confined to Wales, Ireland, Italy, Iberian Peninsula and western Mediterranean island.

2. The Central European or Alpine--The Alpine race is characterised by a fairly dark skin colour, brown wavy hair, brown to dark eyes, broad face. The majority of the peoples are round-

⁸ *The Races of Mankind*, p. 3.

headed They extend from the Central Plateau of France to Switzerland and Balkans, Czechoslovakia and eastward into Soviet Union.



(used by permission of the Editor, *Geog. Review*, N. Y.)

Fig. 1. Races of Europe & Linguistic groups
(from *Geog. Review*, 1921)

3. The Northern European or Nordic.—They are mostly tall in stature, with light complexion, blue eyes. They are mostly dolichocephalic, and a face with a prominent nose and chin are the characteristic racial features of the Nordics. The Nordics mainly inhabit Scandinavia, Northern Germany, and parts of Holland and Belgium. There is also a strong Nordic element in Great Britain. Dixon thinks that the Nordic race is a mixture of Proto-Negroid, Caspian and Mediterranean. He points out the Nordic so be, "an ancient blend of Mediterranean, Caspian, and proto-Negroid typesEngland has escaped the general brachycephalization to which the large part of the mainland has been subjected."

Deniker in his book, "Races of Man" pointed ten races in Europe, which are shown in the following table:

Fair Haired

Dark Haired

- | | |
|-----------------|--------------------|
| 1. Northern | 5 Iberian |
| (a) Nordic | (a) Iberian. |
| (b) Germanic. | (b) Mediterranean. |
| 2. Sub-Northern | 6. Cevenole. |
| | (a) Alpine. |
| 3. Eastern. | (b) Rhaetian. |
| (a) Slav | (c) Celtic. |
| (b) Alpine. | |
| 4. Vistulan. | 7 Littoral. |
| | 8 North-west Race. |
| | 9. Adriatic. |
| | (a) Dinaric. |
| | 10 Sub-Adriatic, |
| | (a) Lorraine. |
-

RACES OF ASIA

Asia has an area of 10,541,000 square miles and a population of over 1,450 millions. The racial origin of mankind has ever been a subject of speculation, as the subject has been a hotch potch of differing opinions of the anthropologists. In fact so much tedious and controversial the topic of human race has been, that no final agreement exists, as to how the so-called present races came into being and how they became ultimately settled in different parts of the world.

However, it is a common generalisation that Asia has had the credit of being the 'Mother Continent' of all the racial stocks of the world. It is generally conjectured that Central Asia might have gone a tremendous climatic change, which compelled the races there to migrate to other parts of the world in successive waves⁹. The whole continent of Asia, excepting the portion of Oceania¹ has more or less the Mongoloid element as predominating. But it has undergone a tremendous change in the southern regions due to the prevailing Tropical climate of those regions, and also

9. Taylor, *Migration Zone Theory of Race Evolution in Environment, Race and Migration*.

1. **South-Western Asia**—This area was inhabited by early immigrants of Mediterranean stock, which forms the main population at present. The northern and southern extremities of this region are inhabited by Armenoids and Anatolian peoples. They are generally round headed and possess dark hair. They are generally short to medium in stature, the skin colour is white, and a prominent aquiline nose. Husing suggests a race of Negritos as the aboriginal population between India and Persian Gulf. According to Husing the Dravidian racial elements are also found in the population of interior Persia. The Jews of south-western Asia are the special development of the Semitic group, form part of the great Mediterranean stock and are divided into two classes—the Sephardim and Ashkenazim, *i. e.* Scythian. They possess big noses, and protruding lips. The skin colour is fair, blue eyes and the colour of the hair on the head is golden. In Iran there are descendants of the ancient dwellers on the Iranian Plateau together with Mediterranean elements on the west, and Mongoloid traits on the northeast. In the east of southwest Asia, Afghanistan is the motherland of the original Afghan stock. Structurally they are taller, and which is characterised by black straight hair. They are mostly dolichocephalic and narrow nose and the eyes are dark and usually grey.

Southern Asia. The most important country of this group is India. Ethnically, Indian sub-continent exhibits a variety of human stocks. Dr. Huston divided India into the following ethnological groups:

1. **Negritos** India shared with African Negritos in the beginning and "with southeastern Asia the supreme position on them of proto-Australoid elements"
2. **Proto Australoid.** They came from the East Mediterranean area.
3. **Early Mediterranean.** They brought earlier forms of Austric family of languages.
4. **Civilised Mediterranean.** They are known as Dravidian in India.
5. **Alpine.** They probably speak Aryan languages.
6. **Armenoids.** It is the offsprings of Alpine race.
7. **Nordic.** They are supposed to have brought in the Sanskrit language in India.
8. **Mongoloid.** They entered into India from the north-east territory of India.

The Veddas of Ceylon are one of the most primitive peoples of Ceylon. They belong to the pre-Dravidian racial stock. Characteristically the Veddas possess a long but narrow head, comparatively broad face and nose. The hair growth is dense and the colour of the hair is dark. The stature is short and the skin colour is dark. According to anthropologists there are no signs of Negro race, there do exist signs of Negritos.

The Mongoloid elements are strongly developed amongst the Burmese. These possess the characteristic feature of Mongoloids. The skin colour varies from yellow to brown, the hair growth is scanty on the face as well as on the body, the head is somewhat round. The face and nose are round.

Eastern Asia. Now we have come to the real home of the great Mongoloid race. China, Mongolia and Manchuria exhibit the typical examples of the Mongoloid features. The whole Mongoloid stock is yellowish or brownish in skin colour, straight and rarely wavy hair, broad and flat face, with high cheek bones, and highly developed epicanthic eyefold. There is a scanty growth of hair on their bodies and face as well. The most important country of this group is China. Physically the Chinese are short to medium in stature, the form of head varies from short to roundish. The skin colour varies according to geographical localities. There is a peculiar development of Mongolian eyefold. The next most important country is Japan. Ainus are the aboriginal peoples of Japan. At present they are confined to the northern islands of Hokkaido and southern portions of Sakhalin. They differ from all Mongolian races in the form of luxuriant black beards, and the bushy and wavy hair growth on the head. According to Henry the Ainus are the representatives of an ancient pre-historic stock. "There are two distinct types of modern Japanese, one of which possesses relatively fine features, while the other is more coarse in type. Both possess certain traits in common. The hair is always black and may be curly in form where influenced by Ainus blood." In general they are short in stature but varies from place to place. The cephalic index and skin colour are also variable.

Central and Northern Asia. Central Asia comprises Tibet, China, Turkestan and Mongolia. Northern Asia is identical with Siberian Russia. In the northern parts of Siberia peoples all live in a crude stage of culture. North-east, out towards Bearing Strait, there are the Paleo-Siberians-Chukchis of north-eastern Siberia, the Koryaks, who live between the Anadyr river and Kamchatka peninsula. The Giliaks, Ainus, and Eskimos who live on the Asiatic side of the Bearing Strait, and others hunters and fishers, are sometimes included in this category. The physical characters are black hair, flat face and nose, cheek bones

somewhat developed and oblique eyes. The majority of the peoples are dolichocephalic.

Oceania. Oceania is the area which extends from Australia to New Zealand, eastward to Hawaii, including all the islands of Pacific ocean. The East Indies actually are a part of Asia, which has begun to break up into pieces and floated away. All of it shares an Asiatic flora and fauna. The people of Indonesia and Malaya are all racially Mongoloids, in a generalised way, being brown skinned and structurally short, with many of them not even Mongoloid face but few of them having marked epicanthic eye-fold. There live many tribal populations. Their great home is the wilder regions of Philippines. Physically they are short in stature, black in skin colour, broad headed. There is a dense hair growth on the body and face. The inhabitants of New Guinea and the adjoining island groups belong to Negro stock. There is considerable variety of racial types, which are subdivided into Negritos, Melanesians, Polynesians and Papuans.

Australia. Probably the continent of Australia is the biggest one from the point of view of racial exhibition. The following table shows the generalised scheme of races in Australia :¹⁰

Races	Cephalic Index	Hair Form	Skin colour
Negrito	Variable	Frizzly	Dark brown
Papuans	71	"	Dark brown
Melanesians	72	"	"
Australians	73		Chocolate
Mid-Melanesians (Nesiot)	75	Dark brown to black	Dark brown
N. Melanesian	77	Wavy	Dark brown to black
Later Polynesian	79	Straight to wavy	Light brown
Paraeme-an	81	"	Brown

¹⁰ Tylor, *Early Man's Race and Migration*, ch. VII.

GEOGRAPHICAL DISTRIBUTION OF RACES

In the sphere of anthropology the most general practice-prevalent amongst the anthropologists is to classify the human stock into three main categories, viz. 1. The Mongoloid Division. 2. Negroid Division, and 3. Caucasoid Division.



Fig. 7. Primary racial Stocks of man

These categories of human stock have further been subdivided into various separate classes. The sub-division of major human races has been categorised into 11. These are¹¹ :—

1. Caucasoid, 2. Mongoloid, 3. African Negroid, 4. Malenesian, 5. Micronesian-Polynesian, 6. Congo or Central African Pygmies, 7. Far Eastern Pygmies, 8. Australoids, 9. Bushmen-Hottentots, 10. Ainu 11. Veddoïd.

The 11 races represent the world population before the wide migration of 16th century but subsequently the tremendous migration and the resultant race mixture and hybridization complicated the task of human classification into various sub-divisions. These 11 races are mostly the result of local specialisation, that is, they have developed certain distinguishing features not from any outside migration and hybridization but by interbreeding amongst themselves. The anthropological traits have also been greatly influenced by the physical and cultural environment. These eleven races have been characterised by the following physical features :—

The Caucasoids. This human racial type comprises approximately a million of the world's population. The most remarkable feature of this race is the extreme variability of skin colour.

It ranges from the lightest to dark brown. This extreme variability of skin colour sometimes leads to a grave confusion, as the word 'Caucasoid' connotes a white race which does not besit on the practical side. So this term could have been employed due to popular usage. Not only the skin colour, but the texture of the hair too is extremely variable, ranging from straight to extremely curly but regarding the magnitude of hair growth on the body is, of course, thick. The shape of the nose, too, varies greatly but there is a general tendency of its being narrow and projected. Their lips on the average are thin. Their cephalic index too represents a great variability, running from one extreme to the other. Their stature also runs from tall to short but on the average they are taller than the average in other races. No general agreement prevails amongst the anthropologists regarding the sub-divisions of this racial stock. A three-fold sub-division of European Caucasoid was made by Ripley into—1. Nordic, 2. Alpine and 3. Mediterranean. A listing of eleven white races by Coon termed, 1. Partial Veddoid, 2. Lapp, 3. Ladogan, 4. Borre, 5. Brum, 6. Alpine, 7. Nordic, 8. Noric, 9. Dinaric, 10. Armenoid, 11. Mediterranean. Krogman derived five principal races of European caucasoid, termed—1. Nordic, 2. Alpine, 3. Mediterranean, 4. East Baltic and 5. Dinaric:

A shley Montague distinguished the following sub-divisions

1. Nordic, 2. Dinaric, 3. East Baltic, 4. Polynesian.

Recently some raciologists have followed Coon in making three sub-divisions of the Mediterranean. 1. Atlanto-Medit., who are relatively tall and are straight to convex in nasal profile. 2. The Iran-Afghan Mediterranean who are comparatively taller but somewhat convex in nasal profile. 3. Mediterranean proper, possessing narrow and straight noses, and are short in stature.

Mongoloids. The number of the Mongoloids is not exactly known but they are lesser than the Caucasoids. Their skin colour, like the Caucasoids, is characterised by variability, but generally the average colour is yellowish brown. The texture of the hair is generally straight, although sometimes tends to wavy and the hair colour is usually black. The majority of the representatives of this race have dark or yellowish skin, the eyes and hair are dark black in colour. There is a fold in eye lid, or a peculiar epicanthic eye-fold. The face is rather flat and the cheek bones somewhat projected. The lips have medium thickness. The majority of this race are medium to short but exceptionally tall in stature. The beards and moustaches do not grow, The Mongoloid race has been sub-

There are :—

1. **Pale-Asiatics.** They include over 1,00,000 natives of eastern Siberia, closely related to pale-Asiatics are about 40,000 Eskimos and millions of Amarinds. The entry of the peoples of N. America from Asia can be dated after the last glaciation. G. Taylor believes that the major migrations of peoples into North America occurred during the late Pleistocene," the history of man in America in all probability commenced after the topography had reached comparative stability. Probably no one seriously entertains the theory that the American Indian (Amerind) originated in America; and the great majority of ethnologists concur that his ancestors entered late in the Pleistocene period from Asia."¹²

2. **Neoastatics.** They are confined mainly to Japan, China and Korea and represented by Chinese, Koreans and Japanese.

3. **The Indonesians-Malva.** Geographically this area embraces all the East Indian islands, situated mostly north of the Equator. The hair of the Indonesian is usually black and woolly and may be curly. The stature varied from short to medium. They are mostly dolichocephalic.

The African Negroids. Numbering about a hundred million, the Negroids with the exception of Pygmies, have their habitat extending from the south of Sahara as far south as Cape of Good Hope. Their skin colour varied from brown to dark brown but sometimes almost dark black. The variability of head hair from curly to wavy and frizzly but the growth on the body is very thin and small. The nose on the average is very wide although sometimes medium to average. The ears generally are smaller. They possess everted lips. The marked variability in almost every physical feature has led to groupings of the race into various sub-divisions. 1. True Negro. 2. Congo Negro, 3. Nilotic Negro. (for detailed description see Races of Africa.)

Melanesians. They number about less than 2 millions. Resembling the Negroids, these are confined to the south Pacific islands, reckoned as Melanesia, stretching for about a distance of 3,000 miles right from New Guinea to Fiji. They are almost marked by variability in their physical features, but on the average their characteristic feature is the deep pigmentation of skin colour and eyes. The hair are highly curled, with dense hair growth on the brow ridges. The reasons, considering them as a separate entity from the Negroids, are mentioned previously.

Micronesian-Polynesian. The Micronesians north of Melanesia number about 1,00,000, and the number of Polynesians come out at about 3,00,000, dwelling in the triangle east of

¹² Taylor, *Environment, Race and Migration*, p. 230.

Malenesia, extending from Hawaii to New Zealand and the eastern islands. The hair growth of these Oceanians on the body is slight, skin colour is sometimes light but generally brown to dark black, the texture of head hair varies from straight to frizzly but is typically wavy. As is evident from its physical features, the group is the hybridized one.

The Congo or the Central African Pygmies. Numbering somewhat in the neighbourhood of 1,00,000, most of the writers regard them as genetically Negroid. But such is the degree of their variability from the African Negroids, that they cannot be included amongst the African Negroids. They measure less than 5' in height, although a good climate and superior diet can considerably increase their height. They are somewhat less darker than the African Negroids and the Malenesians, and they also have more hair on their body than the former.

Far-Eastern Pygmies. They include about 2,000 residents of Andaman islands, some 25,000 inhabitants of Luzon Mindanao and other Philippine islands. Their number in the various Indonesian islands is undetermined. They resemble somewhat with the African Negritos in that they too have fairly thick everted lips, wavy hair on the head and the skin colour very dark. They are medium in stature.

The Australoids. The texture of the head hair varies from straight to frizzly but generally wavy. The hair growth on the body is great. Leaving aside the exception of the skin colour and the supraorbital ridges, they resemble in their anatomical features with the Caucasoids. The Australoids numbering about 40000, are the very dark aboriginals of Australia. They have survived the wave of British Colonisation.

Bushmen-Hottentots. The Kalahari desert inhabit about 20,000 Pygmy population. Prior to the Dutch colonisation and advancement southwards of the Bantu-speaking Negroids, these tribes of Pygmies could have very likely occupied the whole of south Africa. (For detailed description see the Races of Africa.)

The Ainus. Residing in Hokkaido and other smaller islands and numbering about 10,000 these people are thought to be the ancient populations of Japan. They resemble the natives of south-east Australia in some respects, but differ in skin colour which is somewhat light and which resembles that of Brunnet European Caucasoids.

The Vedoids. A group of non-agricultural aborigines numbering in the neighbourhood of a few hundreds, the Vedoids lived during the earlier decades of the 20th century in the interior of Ceylon. They have wavy to curly hair. Their skin colour is chocolate brown and the features rather delicate. They appear to be anatomically intermediate between Caucasoids and Australoids.

CHAPTER IV

TAYLOR'S MIGRATION ZONE THEORY OF RACE EVOLUTION

G. TAYLOR, the recognised anthropologist of the 20th century, had contributed a great deal towards the development of Raciology. He has evolved a theory, known as the "Migration Zone Theory of Race Evolution." To quote him, "The most primitive races are found "pushed to the periphery" *i. e.*, in Tasmania, Cape Colony, Greenland, and Brazil." This is the first principle of race evolution.

"The second principle of Race Evolution—the last evolved races are found in the centre, where stimuli leading to evolution have been greatest throughout the ages." The Third Principle of Race Evolution is that, "Where the racial evolution has progressed farthest, the "buried Strata" of more primitive tribes will be most numerous (This buried evidence includes skeletons, artefacts, place-names, folk-lore etc.)"

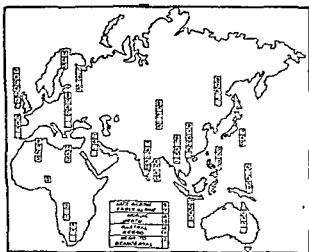
The Fourth Principle of Race Evolution is that "the order of evolution is the same, whether we move outwards from the centre of evolution across the zones or downwards at the centre of evolution through the strata."

The fifth principle of Race Evolution. "It follows that the primitive races are found alive precisely where they did not originate." Continues Dr. Taylor, "the evidence in Europe, Africa, South Asia and Australia shows an age-long centrifugal movement from central Asia (Turkestan or thereabouts), American evidence is more complex but of the same kind."

The hypothesis propounded by Dr. Taylor needs to be evaluated in further details, which requires a general study of the human strata."

Europe exhibits through an abundance of relics, the existence of Neanderthal as the earliest and most primitive man. The Neanderthal is traced almost everywhere in Southern, Western and Central Europe. On account of the lack of systematisation of investigation and paucity of initiative in this field, the scarce relics in the form of Neanderthal or Pro-Australian skulls and skeletons found in Galilee, Capetown, Rhodesia, China, Java, and New South Wales indicates that the Neanderthal must have been fairly wide in the whole of the old world excepting cold Northern regions. This race can, therefore, be graded as stratum 1, which has an association with the early Palaeolithic, in the study of races of the old world.

The Negrito race, the evidence of which is increasing year after year, comes next in the study of races of the old world.



After Dr. Taylor. (used by the permission of the author)

Fig 8. Racial Strata Map showing order of Evolution Generalised Scheme.

It may be labelled, to quote Dr. Taylor, as stratum 2, which is shown in the lowest map of figure 10. The so-called "Artefacts" of Aurignacian type has a common relationship with this race. But it should not be interpreted that wherever the Aurignacian tools and paintings are found, the existence of Negrito race may not be presumed. However the race being a fairly widespread one, it might have introduced the cultural elements such as the tools and drawings throughout the world. As appears from their existence in the inaccessible inland portions or the marginal islands, they are commonly the earliest race having their occupation of those difficult and inaccessible territories with the other folks. Remnants of their cultural features are found uninterruptedly from Europe to Southernmost Africa. India also represents their existence in the form of similar drawings at Raigarh in Madhya Pradesh.

As the map indicates they seem to be the only people to have reached Tasmania. They occupy in the map the lowest stratum throughout East Indies, Melanesia and India.

The third stratum is the Negroid. Towards the end of the Palaeolithic these would have been quite abundant. Boule in his famous work—*Fossil Man*—tried to prove their existence through their skeletons in Brittany, Switzerland, Liguria, Lombardy and Bulgaria. Their existence is universal through Africa to Melanesia.

The fourth stratum, which has a world-wide existence and which has probably penetrated through America, is the Australoid. The presence of this type through Australia, Indonesia, South East Asia and South India, indicates its universality. Some types similar to the Australian were common in Europe in the early palaeolithic times. But it cannot be decided easily whether those early people were more of Australians or African types.

The fifth stratum, labelled as Mediterranean has an affiliation with the Pro-Magnon folk of upper Palaeolithic. The broad faces and narrow skulls which are their characterising physical features are found in the Canary Isles and Eskimos of Greenland. Probably most of the earlier Amerinds also have the pro-Magnon blood. Regarding the main Mediterranean stratum it is almost universal excepting some peripheral portions of the world where the Negroids still dwell in abundance. The most interesting point

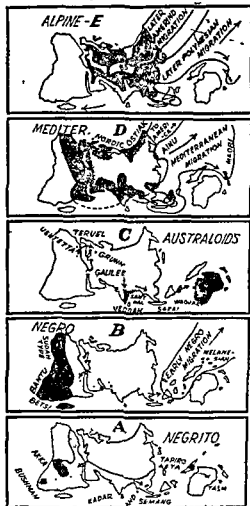


Fig. 9. A stage diagram showing the five stages in racial migrations in the old world, each representing a separate major race. (After Dr. G. Taylor—Environment, Race & Migration P. 259 (used by kind permission of the author))

regarding them is that they once occupied the whole territory which is now Alpine or which is now dwelt in by the Allied-Mongolians. They took with them the late Palaeolithic and Neolithic civilization throughout the world. This might have happened long before the Egyptians took to settled mercantile and city life. It is on account of this that many of their cultural features has a close association with the Egyptians. The Neolithic Artefacts are found almost through Siberia, Manchuria and Mongolia. But according to Boule this Neolithic culture has a lesser amount of separation from the Palaeolithic than it is in Europe. This appears to indicate the gradual growth in the original Asiatic homeland of Neolithic civilization. But contrary to this there is an abrupt and sharp break in Europe between the Neolithic and Palaeolithic cultures.

Stratum 6 represents the Nordics which, according to Taylor, is a "specialised upper Zone the Mediterranean." It has a typical occurrence in North-West Europe, but the sporadic occurrence of the Pro-Nordic types is found from Turkistan to Northern Japan. These blond people are shown by Biasutti throughout "The square block whose margins are Iceland, the Yenessi river, Tarim Basin, Southern Persia and the Atlas mountains."

The most abundant of the living races are the Alpine or Mongolian which are the latest strata. But they do not have the widest jurisdiction in human history. It is speculated that in the centre of brachycephalic Asia, there must have existed the ancient narrow skulls and the same is the case with the Kurgans of Siberia which are definitely pro-Nordic in type.

The accompanying stage diagram of G. Taylor indicates the four races so far discussed and their respective migrations. The black area in the map indicates the present habitats whereas the dotted area shows the probable ancient habitats. The remotest and the oldest race is shown at the bottom and the subsequent races are shown upwards in order of their grading.

The latest and the best known distribution is that of the Alpine race shown at the top and labelled as E. In some of the text books the Alpine has been divided into two distinct races—the Caucasians and the Mongolians. The celebrated Anthropologist, G. Taylor, does not agree with this division of the Alpine race into two. The reasons for this division seem to him as insufficient and not much weighty. He admits that there is a slight facial difference between a "slant-eyed Mongolian and an European Swiss," but slantness of eye does not seem to him to be a major criterion for this racial division, as it also occurs among other races. Clieck-bones, characteristic feature of the Mongolian type, are more prominent in some parts of Scotland than in

Mongolia. In the light of the above it is difficult to draw a satisfactory demarcatory line between the European Alpines and the Asiatic Mongoloids.

It is note worthy and interesting to see how exactly the belt of the broad-headed folk occupies the centre of the Zones. If the Age and Area hypothesis, propounded by Dr. Taylor is adhered to, a conclusion is reached that the human evolution has been in the direction of broader and more broader heads. If it is accepted that the central Zones carry the latest evolved races, then this belt of "hyper-brakephs" (extending from Switzerland to Korea) carries the last evolved of races. This evolution probably might have "occurred more than twenty thousand years ago."

The second note worthy thing in the distribution of Alpine race is that it reaches the Pacific coast, but it does not have any

border connection with any of the other oceans. It indicates that the focus of Alpine must have been more accessible or nearer to the Pacific than to the Arctic, Atlantic or Indian Oceans. This has been attributed by Dr. Taylor as due to the topography. The great topographical barrier, known as "Alpine Storm" (a continuation of the



Fig. 10. Racial Migrations from Central Asia—
after G. Taylor.

lately formed mountains) stretches from Spain to China with hardly any break. Broader plains extend north of that, having facilities of East-West movement. Further North from these broader plains are the cold deserts of Tundra which might have definitely retarded the Alpine expansion during its growth and subsequent development.

Considering these limits, we are led to assume a centre from mid-France to China where Alpine expansion might have taken

place. It is doubtless that this focus might have been located somewhere near Turkestan. The ancient European history reveals the frequent influxes of Brachycephs via Anatolia. Almost from the beginning of recorded history, invasions on Russian steppes by nomads from the Asiatic plains had been frequent. Same is the case with the history of the Near East, where invasions from the north and north-east had been quite abundant. India has felt the sorrow of foreign attacks always from the north-west. All these branches of migration has had one centre, near the Caspian and Aral seas. According to Dr. G. Taylor "all the recorded history can be summarised in five words, 'The Thrusts of the Alpines.'"

Some of the earlier Alpines are found in the Islands of Pacific, as it is bounded on the east by that ocean. This is a fact, as the Alpines are also found throughout Polynesia. Further climatic conditions in the old world during the last few thousand years had been warmer than they are today. During the Azilian time—from B. C. 8000 to B. C. 5000—Europe had had a warmer climate than now. In the context of such climatic upheavals it is conjectured that climate in the north-east Siberia and Bearing Strait may have had a much more attractive climate than it is today. This period had been vast "hordes of earlier Alpines pouring into Alaska" and the adjacent American lands as they had been pushed onward by the expansionist tendency of the later Alpines in Asia.

It is of special importance to note that the present Alpines are "everywhere the latest comers." They have been placed in the top stratum and according to the law of "geological superimposition", they are the last evolved. There appears to be a great co-relation between the ethnological record expressed by the above mentioned strata and the geological record. Although it is incomplete yet the order of succession is same throughout. The latest stratum (8) is found only across the old world centre. Geological record exhibits the history of the evolution of life. In the same way the ethnological record also "incorporates the history of racial evolution." The conclusion reached, therefore, is that the Alpine-Mongolian is the latest type of race, having been developed from a type like the Mediterranean race.

It is apparent that the relationship between the Negrito and the Alpine people is very remote. If it is assumed that the Negritos had developed into the Alpines, then there should certainly exist a zone of broad headed hybrids, between the Negritos and the Alpines. But the case is otherwise. The Negritos, whether broad headed as in Asia or narrow headed as in Africa, are found in isolation amongst the large number of other people. This is the case in Southern Australia, Melanesia, in Central Africa and in South Africa. The only explanation that can be

given, therefore, is that the "ancestors of Negrito and Neanderthal types might have evolved independently from the primitive catarrhine ape-stock, in Pliocene or Miocene times." They remained together in Asia till the period of tremendous climatic changes in Pliocene, which quickened the evolution greatly.

The Mechanism of the Migrations. Although the obvious explanation of the racial migrations mentioned in the preceding paragraphs, is speculative but such speculations, if backed on the accumulated scientific truths, provide the more adequate background for further insight into the science of anthropology. In the foregoing paragraphs an attempt has been made to demonstrate a zonal distribution of the major races of man of central Asia. These four races are the Negrito, the Negro, the Mediterranean and the Alpine-Mongolian races.

The various strata mentioned in the foregoing analysis of the human races and their migration have been attributed to have a common centre. This common centre had had the collection of the intelligentsia and commercial initiative which contributed towards the later development of commerce and industry in the new centres. As would become evident from the racial map the old world not only had the greatest range of climate but also the greatest variations in climate during the period of man's life on the earth.

Like the great Ice age of Europe, Asia also influenced it, although due to the distance of central Asia from the sea and the absence of high lands in Northern Asia, it is likely that Northern Asia would not have felt the magnitude of the Ice-age, so heavily and it would not have experienced a universal coverage of ice, as had been the case in North America and North Western Europe. Antevs in his recent book "The Last Glaciation", states that most of Asia of 62° N. was heavily glaciated although it is nearly at sea level, which includes a belt along the Arctic ocean, 300 miles in width, now occupied by Tundra. (Fig. 11). The Siberian High lands were also occupied by ice. In the Yung-ling mountains of South-west China the snow line is now at 18050 ft. but during the Pleistocene era it was at 4000 ft. lower. The climatic variations in Asia were similar in kind to those of Europe. Due to the then prevailing harsh climatic conditions, the migrations were very slow and were undertaken by the primitive people unwillingly. They were the hunters, preying on wild animals or upon wild fruits etc. with the coming of the Ice age the forests, steppes and Tundras might have moved slowly towards the south. The range of temperature due to this climatic onslaught was 12° F to the maximum.

Research conducted in Scandinavia has revealed the implications of the movement of ice-caps, vegetation zones and of man himself. De Geer and others working on the varve clays have dated the moraine of the exhausting warm ice age as it developed in South Sweden. They date it to about 18,500 B. C. It is shown in Fig. 11 where Sweden is shown buried under the great ice cap. The presence of peat bogs in Germany and Denmark indicates that Tundra plants were growing south of the ice-cap at that time.

The block diagram in Fig. 11 indicates that the ice-front has retreated halfway along the Swedish peninsula. It has

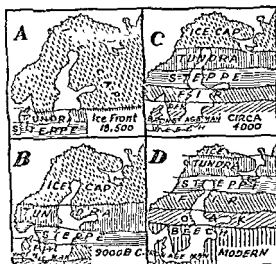


Fig. 11. Retreating of ice & Primitive Man in Scandinavia (after—G. Taylor)

been dated about B. C. 9000. At that time the peat bogs from Germany also show the remains of fir-trees and the artefacts of Neolithic man are also found side by side. As a consequence of severe climatic conditions the Palaeolithic man found the Tundra and Steppe as most unattractive and so he never settled on the Baltic.

The other diagram C indicates a further retreat during B. C. 5000. Southern Scandinavia is now covered with the fir and Northern Germany by the oak trees. The oak stratum contain

the bronze-tools, thereby showing that a comparatively higher culture has moved to the north with the retreat of ice. With the beginning of written historical records, the conditions were almost like those of today. The Baltic stratum now has the beech as the dominant tree. Under the foregoing paragraphs brief analysis of human migration, a dated set of zones and strata is obtained, which lead us to assume that similar movements of vegetation and man northward and southward, must have accompanied every one of the ice-ages throughout the Pleistocene.

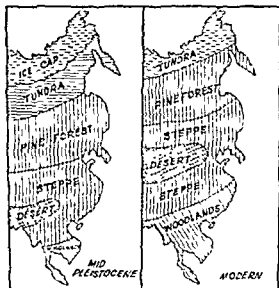


FIG. 12. Shifting of Climatic belts in Eastern Asia.

The conditions leading to human migration in the ancient past have been suggested in his hypothesis by Dr. Taylor. He has produced a map of East Asia. (fig. 12) The place of origin and his subsequent development of the primitive man has been shown in Asia on the borders of warm steppes and the wood lands. Under the then prevailing climatic conditions, he would have undoubtedly moved towards the south, which now form the tropical lands, because all his food supply would have been concentrated only in the south. After an interval of many thousand years, the cold climatic hazards would have passed away slowly and according to the flora and fauna would have to move to the north, and a larger population of the human race would have preferred to move to

the north, but it is also conjectured that some of the people might have remained in the south inspite of the increasing warmth and tropical conditions. Such kinds of tribes which preferred to remain in the tropics might have stagnated, for them there seemed to be no climatic stimulant, no invigorating change of seasons during the entire period of the ensuing interglacial period, consequently primitive man here is preserved even during the modern times.

In the meantime the tribes migrating northwards, towards the inland regions, might have experienced and subjected, to a great difference in the environment during the interglacial period. Here the primitive form of race changed into that of a higher race in the course of one hundred thousand years. The same phenomena would have been repeated with the commencement of another ice age. This second race (B) during the subsequent ice age, would have migrated southward. It probably now consists of much larger tribes, which felt the least of difficulty in driving the unprogressive and stagnated portion of race (A) farther south into the tropics and ultimately towards the islands, South of Asia. With the retreat of the ice-age, the race B returns leaving of course race A and parts of race B to the south of Asiatic landmass, towards the north, and the process goes on.

It is rather difficult to correlate the evolution of the major races with the Great Ice age, but it would appear that four major forces have tended to produce four differentiations in the human stock. The theory discussed in the preceding paragraphs, correlating the four zones of people with the four zones of "climatic thrusts," in the light of merit, should be given consideration.

The relation between the evolution of man in Europe that man appeared in Europe and Asia is to be considered. As some writers assume that man appeared in Europe in the second interglacial epoch. If this fact should be considered true, then it is most likely that he might have existed in Asia many millennia earlier, and might have moved to Europe; he might have spent the remaining time in crossing western Asia and Africa until he arrived in Europe and settled there. It is also considered that both the Negritos and Neanderthal type of man would have occupied Asia during the Mindel Ice Age. According to Taylor, "Perhaps the Negritos migrated as a result of this climatic thrust, and never returned to the "Region of maximum evolution," that is Asia. The Neanderthal stock of man would have migrated after passing of the second ice age and it might have reached Europe during the third ice age. During the Riss-wurm interglacial period, the Neanderthals were the predominant racial type in Europe. But it may be postula-

ted that during that period the allied Negroid or Australoid fold in Asia were evolving into the Mediterranean peoples.

The consequence of the third ice age was felt most by the early Mediterranean people who were driven from Asia and migrated to Europe as the Cro-Magnons. The fourth climatic thrust had been responsible for the migration of many later mediterraneans and of the early Alpine-Mongolians, who made their appearance in Europe in Azilian times after the passing away of the last ice age. According to Dr. Taylor, "The result of these alternating periods of evolution and migration is that the races of man have become arranged in a series of somewhat complicated zones about Central Asia."

Keith's Hormone Theory The evolution of human race occurred in a graded pattern. The evolution has occurred from the long headed, curly haired, platyrhine Negro to the broad-headed, straight-haired, leptorhine Alpine. Taking into consideration the complexity of the evolution in such a graded manner we are confronted with a problem and that is what has been the physiological agent that has moulded the man in such various forms. Sir Arthur Keith has attempted to evaluate the method used by nature in this respect. He has propounded a theory known as Hormone Theory, which postulates that the numerous criteria adopted by the anthropologists in identifying the *Homo sapiens* into several races, have definitely been affected by various glands in the human body. The most important amongst them "are the pituitary and pineal glands within the cranium, the thyroid gland in the throat and the adrenal glands near the kidneys." A large chin, nose and brow are due to the abnormal growth of the pituitary glands. These very features are the characterising ones among the Neanderthal people. It is because of a slight stimulation of the pituitary glands among the European folk that they have the comparatively abnormal development of nose and chin. The adrenals near the kidneys determine the skin-colour and it is postulated that the original black colour of the primitive man might have undergone smaller or greater variations on account of the variations in the adrenal glands.

Smaller stature and stunted growth is due to the poor development of thyroid glands. It also leads to the underdeveloped and depressed nose and hair and a flat face. These features characterise the Mongolian peoples particularly and a general decrease of thyroid might have led to somewhat Mongolian type, represented by the people of East Asia as a whole.

It is due to the deficiency of thyroid that the Hottentots and Bushmen differ from the Negro.

The sexual features such as hairiness of face and body are also governed by the adrenal glands. Taking this into consideration, it can be assumed that the Europeans and Australian people are well off in adrenal glands whereas the Negro and Mongolians seem to be totally deficient in the development of adrenal glands.

It is conjectured that a warm and moist climate had been the early environment of man. With its change into a moist cooler climate in the central Asiatic regions, one type of glands and hormones might have been stimulated and in this manner the changes in facial and bodily forms would have occurred, which demarcates between the Mediterranean and the Negro. The other changes in the development or retardation of hormones and glands in localities in the course of a long time might have occurred due to the climate being turned into aridity. This would have had its repercussions in the other glands and Hormones resulting in the creation of the stocky, broad-faced, straight haired Alpine and Mongolian peoples. One thing which is to be remembered is that the changes in the glands and hormones had been mainly due to the climatic thrusts and so they had had in an intimate relation with the vast climatic changes occurring in the geological past.

Bol'sha' Confractio. All of the human migration and differentiation of human races took place during the pre-historic epochs, like the other animals and beasts, man was also totally governed by the natural forces. It is, therefore, desirable to see something of the same phenomena in the higher mammals. In his book "Climate and Evolution" W. D. Matthew has established that this is the case.

The evidence should be considered against the evolution of Tapir rhinoceros and horse. They belong to one family of Perissodactyl mammals. Their general evolutionary trend is from the Tapir to the rhinoceros and then upto the horse. It can be exemplified with the original five toes, the rhinoceros has three and the horse has only one remaining. The horse has been evolved from a more plastic form by the changing environment. The interest lies in the distribution of these three mammals. The Tapir dwells in living form in South America and the East Indies. It necessitates two centres of evolution in accordance with the old theories of biology. These two regions find a coincidence with the views of some ethnologists who propound that these two regions, i.e., South America and East Indies, are the "Cradle lands of human race."

The rhinoceros dwells in South Africa and India, it also dwelt in North America during the Pleistocene times.

The horse has as its natural habitats the centre of old world and North America. Along with many animals of its category, the horse disappeared from America in late Tertiary times, on account of some diseases.

Three zones are, therefore, obtained arranged about Asia, in the order of evolution. The old world exhibits the fossil evidence of the horse stratum over that of rhinoceros and the fossil stratum of the Tapir lies below the first two. The Alpine man seems to be the proper substitute for the horse, as the former has almost the same habitat. The Tapir finds its substitute in the human variety known as *Negro*. This analogy seems to be uncontroversial and establishes the fact that the Alpine Mongolian type is higher form than the Mediterranean.

The birth place of man is also evidenced by the biological aspect. A change of climate during the tertiary times has had considerable evidence. There was almost uniformity of warm climates in the mid-latitudes in the early tertiary times in the old world. It was probably due in part to the considerable changes in the eccentricity of the earth, and the inclination of the axis.

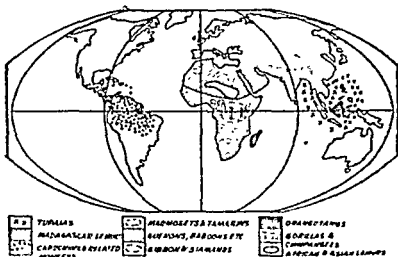


Fig. 11. Distribution of Primates (after M. Pleschky)

✓ Eocene Monkeys, Matthew conjectured, occur in central U.S.A. and France, indicating thereby that those areas were tropical forests at that time. With the coming of Miocene times,

the forest belt had undergone a tremendous shrinkage, because the fossil anthropoids dwelt mostly near the Equator, in Italy around the Aegean sea and in Persia.

During the Pliocene times the fossil anthropoids move farther toward the south, and are found in north India and China. It indicates the limit of forested belt during the Pliocene times. It is most justified that the region between the Indian ocean and the Arab Sea was a forested-territory with a moist and warm climate. It is also a fact that the plateau of Tibet and the Himalayan mountains were not fully developed till the end of Pliocene.

About the genetic relation of the races, Dr. Taylor points out that the fundamental thing regarding the racial ecology is that each group consists of twin races. In other words these are the Pacific and the Atlantic twins. Among the Negritos the twins are the Aeta and the Congo pygmies and the process is the same in all the races. In this way the ecology shows a common originating centre for each pair of twins.

The second fundamental thing is that the breadth index of the head undergoes a change in a progressive manner.

The third important thing to remember is that the Alpine type is the latest developed of all the races, having an extension from Switzerland to Korea. The affinities of the Negrito, according to Dr. G. Taylor, is that "it is to assume two precursors of modern man living in middle Palaeolithic times. This was about 50,000 B. C. in France, but was probably several hundred thousand years earlier in Central Asia. These two were Neanderthal man and the Proto-Negrito type. From the former developed the four later races."

CHAPTER V POPULATION

* A population may be defined as an aggregate of disparate items, or individuals, each one of which conforms to a given definition, retains its identity with the passage of time, and exists only during a finite interval. An individual enters a population, or is born, when it first conforms to the definition which identifies the population, it leaves the population or dies when it ceases to conform with its definition."¹ In other words, population is essentially a quantitative concept. K. E. Boulding's definition of population is generally accepted.

If a glance is set on the population distribution map of the world we will find that the population of the earth is very unevenly distributed. An area equivalent to about one fourth of the

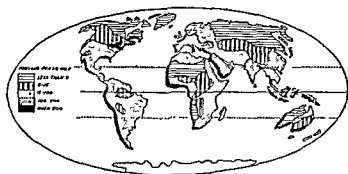


Fig. 14. Density of Population

55 million square miles of land surface holds approximately 90% of the total population. The remaining 10 percent is very thinly populated over the other 42 million square miles of land, most of which is too cold and arid for agriculture. Three large zones of population may be identified:—

1. K. E. Boulding, *The Application of the pure Theory of Population change to the Theory of Capital*, *Quarterly Journal of Economics*, August 1934, p. 630.

- (1) Eastern and Southern Asia, including India, China and Japan, which contains over half the world's total population.
- (2) The Western and Central Europe. There a fourth of all population, 500 million, occupies an area which amounts to roughly 6% of all land.
- (3) North Eastern United States of America.

In all these three zones the density per square mile exceeds 250, but there are many local variations. In Yangtze valley the density is 900 per square mile, in Hwang Ho valley it is 650; and about 650 per square mile in the Ganges delta. In spite of excessive density of population in certain regions about half the total area of the earth is now empty space.² In certain regions the density is below 2 persons per square mile. These are: Hot deserts, Equatorial regions, Mountains and Plateaus of central Asia and sub-polar areas. In addition to the combined effect of various natural factors, certain human factors are very important in affecting the birth rate and density of population in a given part of the earth. Infanticide is practised most frequently thus striking directly at the source of population. As Diamond Jenness observes "as late as 1916, during a rather severe winter, five Eskimo mothers around the western end of Coronation Gulf, where the total population did not exceed four hundred, destroyed their babies within an hour of delivery."³ Infanticide is very generally practised among Tikopian family. According to Dr. River, "A Tikopian family is usually limited to four children, any in excess of this number being killed by burying them alive in the house or just outside it....."⁴

The population of the world is very unevenly distributed over its surface. Both natural and cultural factors are involved in any explanation of the distribution of the people on the earth, but the great differentiations in population density can be explained to a large degree by natural factors. Those factors affecting the distribution of population include the rainfall, temperature, relief features of the earth, water supplies, soil conditions, and location with regard to trade routes and world markets.

Geographical Factors those affecting the distribution of population:—

Rainfall.—The best example of the relationship between population and rainfall is afforded by the Indo-Gangetic plain of India. Here the amount of rainfall goes on diminishing from

2. O. L. Parker, *Utilization in United States*, Geographical Review, Vol. XIII p. 25.

3. Diamond Jenness, *The Indians of Canada*, Bulletin 65, p. 52, Ottawa 1932.

4. W. H. R. Rivers, *The History of Melanesian Society*, Vol. I p. 313.

east to west and with the decreasing rainfall the density of population goes on diminishing. The relation between the amount of rainfall and population, in general, is universal. According to Brunches, "Excessive rainfall, too, like a shortage of rain militates against an excessive growth of population, so that the greatest and best development of humanity is found in the areas lying between two extremes. It is always the intermediate zones that are the great cradles of population. . . ."⁵ That is to say the density of population does not remain dense even if the rainfall is heavy and *vice versa*.

Temperature. Among the physical factors, influencing the density of population, temperature occupies a prominent place. A climate having a suitable temperature has an invigorating influence upon the efficiency of man—both mental and physical. According to Huntington, "Temperate marine climates with their stimulating and invigorating effects on the physiological and mental framework of man are among the climates par excellence the best area for maximum concentration of human settlements."⁶ On the contrary a very high temperature like that of the Equatorial or desert regions and a very low one of the polar regions both are detrimental to human efficiency. A map of the

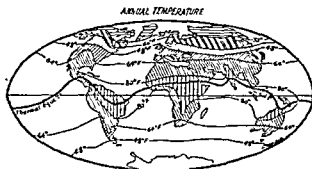


Fig. 15 Annual temperature.

world showing the pattern of population distribution and as an intimate adherence with that showing the temperature distribution of the world. Both quantitatively and qualitatively the most densest regions, excepting a few of the world run almost parallel with the regions having a suitable or moderate temper-

5. Jean Brunches, *Human Geography*, p. 45. ✓

6. Huntington, *Civilization and Climate*, 1924, p. 391.

ature. The density of population and the quality of population of the temperate regions of the world has much co-relation with the prevailing temperature. According to Vidal De La Blache, "distribution of these early centres seems to be confined, approximately, to a zone bounded by the Tropic of Cancer and the fortieth parallel of latitude." Of course, certain exceptions are there, in which temperature does not possess a primary status, rather it has secondary or subsequent importance. The Tropical regions, especially the East Indies, are densely populated not because of suitable temperature but because of the political expansionist policies of the temperate countries. It is because of their political covetedness to acquire strategic position and valuable raw materials that the present Indonesian countries exhibit such a dense population.

Mountains. In the mountainous regions the soil is somewhat fertile but the soil erosion is very great, the climate is very cold, for these reasons within hilly areas the cultivation of crops is done on a very limited scale, as a consequence of which the population is also very sparse. The population goes on decreasing with the increase of elevation. One of the best areas in the world for white settlement has been estimated by Griffith Taylor on

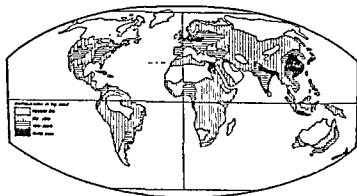


Fig. 16. Population density with relation to temperature.

the basis of elevations,⁷ and it will be useful to consider the chief elevated regions with a considerable population. According to Taylor, "In Europe the largest areas of heavy population occur

7 P. Vidal De La Blache, *Human Geography*, p. 75.

8 G. Taylor, *Environmental Factors in Man's Life*, pp. 440-450.

the world, which have been zones of poor soils as well as of high birth rate, the effects of heavy population pressure are especially manifest, and this may have caused the tendency towards the declining population, as vividly expressed by O. E. Baker, "That wonderful era of rapid increase of population, of the flowering of the spirit of freedom and individual initiative of agricultural expansion, of exploitation of the virgin soils and rich mineral resources of a continent, with the speculation inevitably associated with such exploitation, of unprecedented industrial and commercial development, of growth of cities, concentration of wealth, and rise of urban culture is drawing to a close. The new era we are entering, judging from present trends, will be characterised by a search of economic security and stability, and by a drift from emphasis on freedom and individual initiative, associated with dependence on the family and occasionally on the church or lodge, to extensive dependence upon the State. No other agency, seemingly, has the power to cope with the conditions that are developing"¹³

Rivers. In areas where the rivers deposit fertile soils every year, the agricultural density of population is great, because the "fertility of that most productive section of the river valley that creates and maintains the greatest density of population."¹⁴ In those rivers where the Hydro-electric power can be developed, there is vast possibility for the adjoining areas to hold dense population in the near future, because the truth of the matter is "that these great rivers have many different potentialities"¹⁵

The ruined civilization of the world is the product of river soil.

Minerals. In areas where the minerals occur in great quantity, industries grow and attract the labours from other areas and consequently the density of population becomes very high.

Means of Transportation and Communication also influence the density of population.

Methods of Agriculture. The density of population depends upon the methods of agriculture. If the agricultural methods are scientific, the yields are higher and the supply of food resources will be greater and in consequence the density of population will also be higher. In the islands of Japan as well as that of Java the density of population is very high. South East Asia ranges very high in population density. The higher density of these Islands is attributed to the fact that here the fertility of soil is great and the main crop of this region is rice. The population density of rice producing areas is comparatively higher, because,

13. Quoted in *The Institutional Theory of Economics* by R. Mukerjee.

14. R. Mukerjee, *The Political Economy of Population*, p. 112-113.

15. P. Vidal De La Blache, *Human Geography*, p. 77

first, a certain quality of rice can feed more persons than the other crops; secondly, the rice plants mature earlier i. e. in three or four months while the wheat reaches maturity in five or six months. Hence three or four crops of rice can be grown in a year if the climate is warm enough so that rice plants can quickly complete their cycle of growth, thirdly, the per acre average yield of rice is three times greater than that of wheat and twice that of barley; fourthly, the rice agriculture requires a lot of human labour and hence it is cultivated in densely populated areas. Java is the most densely populated Island in the world. The total area of Java is 50,700 square miles with a population of 51.2 million 1953, and the population density is 1009 persons per square mile. Java's extremely fertile lava soil produces a wide variety of commercial crops to feed her increasing population which is now probably growing by over 1.5 percent per year, despite a fairly high death rate. The pre-war Dutch administration provided a lot of public services and the foreign-trade flourished greatly, especially in oil, tin and the production of plantation agriculture mainly managed and financed by the Dutch.

Food and Migration. In the primary stage of human evolution, the human beings "moved in cluster." In the beginning the forested areas were also favourable for human settlement, because the early man was quite dependent for his food on Nature. "Social life in the old stone age seems to have moved from one source of raw material to another."¹⁶ Migration of races was undertaken due to some calamities affecting food-supply in the ancient past. The table given below has been taken from G. Elliot Smith's "Human History," and will indicate the original habitats of principal races, as the assumed early migrations of races.¹⁷

No.	Race	Original Habitat	Route of migration
1.	Nordic	Russia between the Ural mountains and Moscow.	South of Greece, Syria and Asia Minor, east of Persia and India, and west of Germany, Holland, Scandinavia and Britain.
2.	Alpine	Region between the Caspian sea and the Altai.	South-west of Turkestan, Mesopotamia, Syria and Egypt, West to the plains of Russia, east to India and north east Asia.

16. Perry, *Growth of Civilization*, p. 33.

17. G. Elliot Smith's, *Human History*, Chap. IV.

3.	Mongol	China between the Hwang-Ho and Yang-Tsze-Kiang	North into Mongolia and Siberia, West into Turkestan and Tibet, and South into further India.
4.	Mediterranean	Shores of Mediterranean	East to Sumeria and India, and North-west to Southern Europe.
5.	Negro	Equatorial Africa,	South to East and South Africa, and east through Arabia, India and Further India to Australia.
6.	Australian	India	East to Burma, the Malay Peninsula, the Pacific Australia.

The development of the means of transport and communication has spread the man in almost every corner of the world.

Although it is still true that population is not everywhere equal, that is to say, the population and race problems as we know today are the results of migration and contacts of peoples. Race conflicts are among the most important factors of political and social unrest in the contemporary world and their significant increase as racial feeling. Historically, "Such contacts had their origin in the migration of races and in the conquest of territories already inhabited by other races." According to raciologists that cultural differences are determined by various racial heredity and raciologists claim that the superior races can create superior cultures.

The problem of Indians residing in Ceylon is creating a difficulty for Indian Government, for it wants that they should be allowed to remain there but Ceylonese Government does not want to hold any foreign stock. Such problems are not only confronting Oriental but it is also creating a havoc to Occidental. The migration of races, caused by overpopulation and economic wants and attempts to escape from exploitation and persecution, "has led to the further widening of the area of conflict."

The Demographic Cycle. The 'demographic cycle' is applied to the whole world, various nations cut the cycle at different stages, mainly based on the population growth of different countries. As Professor Lull explains, "Several distinct stages are recognized in the career of any organism, certain of which constitute the life cycle. They are, briefly enumerated, the egg, embryo, adolescent, the adult, which in turn gives rise to the egg of a future generation. An additional stage, not always included is the senile, or that of old age, and the life of the individual is terminated, which, however, although a perfectly normal

phenomenon, is not necessarily part of the life cycle and may occur to any stage of the organism's career," continues Lull, "If death occurs before procreation is accomplished, the normal life cycle is not complete, for, as the name cycle implies, the full sequence of events is from egg to egg, or if the individual be a male, from egg to sperm."¹⁸ If the statistical data of the population growth of various countries be studied, the conclusion reached is that there are five stages of population growth which are termed as "Demographic cycle". According to the growth of "demographic cycle" the world population can be divided into the following sectors."¹⁹

THE FIRST HIGH STATIONARY PHASE. According to O. E. Baker, "A stationary population is probably the most desirable condition, for one reason because a larger proportion of the population is in the productive age group—20 to 60 or 15 to 65 years of age than in an increasing or decreasing population."²⁰ The countries in this phase of development are marked by high birth and high death rates. In this category countries are included such as Tibet, Indonesia, Ethiopia, Persia, Arabia, Afghanistan, China etc. and countries of South America. The major portion of the population resides in villages and their economic development and improvement of its living standards, thus depend largely upon the growth and progress of the agricultural sector of economy. A good or bad harvest depends on the abundance of rainfall or the absence of it. The rain in plenty makes the per acre yield of agriculture high. The higher yield means the abundance of food resources. Therefore, the capability of land to hold dense or otherwise scanty population depends on the quality of rainfall. But the density of population does not remain dense even if the rainfall is heavy.²¹ This results in bad crops, and the yields are low. Diseases, floods etc. govern the high death rate. China is the important country of this group, as Dr. Warrens S. Thompson points out, "It seems reasonably certain that the birth rate in China is not over 40 and my belief is that it will average at least as high as that recorded for Formosa (45.6) and possibly even higher. The data on the death rate are even less consistent than those on the birth rate but seem to justify the statement that the death rate seldom falls below 35 and then only under conditions quite exceptional in China, such as in a small area where there is some health work in a 'good' year when the harvest is abundant and epidemic disease is mild. The death rate in China

18. R. Swann Lull, *Organic Evolution*, p. 167-170. *English*

19. Dr. C. P. Blacker, *Stages in Population Growth in Enquiries Review*, 1948, p. 88-102.

20. O. E. Baker, *Significance of Population Trends to American Agriculture* The Milbank Memorial Fund Quarterly, Vol. XV, April 1937, p. 122.

21. P. Vidal De La Blache, *Human Geography*, p. 75.

is highly variable from year to year and from place to place. The violent fluctuation, much more violent than the fluctuation in birth rates, is probably characteristic of all populations which, like that of China, have practically no health service and live close to the subsistence level, even in good years."²²

The Second Phase. The countries within this group are Turkey, Burma, Ceylon, Pakistan, Madagascar, Egypt and Mexico, etc., Besides this, the countries which come within this phase were formerly under imperialism and colonial rule, such as Indonesia—formerly under Dutch rule, Formosa and Korea formerly under Japanese control, Indochina—under French influence and Malaya formerly under British rule. We have seen that the pressure of population is not evenly distributed. Large areas of land are lying devoid of human settlement, whereas some very small parts are thickly populated. This unequal distribution of human stocks always seems the root of many political, economic and social problems. To some extent imperialism and colonialism are the results of this uneven distribution of human stock over the globe.²³ Although with the passage of time the imperialism and colonialism have gradually vanished, but the problem of over population is still actually facing many undeveloped or semi-developed countries. Every country willing to establish the relationship between her increasing population and available natural resources. The economic systems of the countries in the second phase are characterized by improved agricultural methods, with the introduction of irrigation facilities and flood control measures. These countries are so densely populated that human effort has exploited to the maximum extent all the natural resources and has reached the optimum point of population and now they are entirely beyond that point. Slight industrialization has also begun and few technical training also provides the labours for scattered industrial establishments. It is also called the "early expanse", in which the birth and death rates range about 40 and 23 per thousand.

The Indian Republic is the typical example of the second phase of "Demographic cycle." The history of industries and commerce in India is rather recent and the initiative provided by the Indian Government in the form of five year plans, is gradually tending to make the country more and more industrialized. India is determining to establish optimum population in order to increase the national dividend to the highest possible level. Birth control is one of the most important solutions to prevent the over population. Besides, this birth control is necessary in the "interest

22. Thomson, *An Experiment in the Registration of Vital Statistics in China as Population and Place in the Pacific*, p. 120-121.

23. *Encyclopedia of Social Science*, vol. 1 chap. Page Conflict.

of social economy, family happiness and national planning, family planning and a limitation of children are essential".²⁴ The prospective role that birth control, along with the mechanised farming and industrial development, is expected to play is indeed very great. The Government of India appointed in 1950 the Planning Commission, which points out, "While Family Planning is intended to bring down over a period of time the rate of population growth, immediately it is a step in the direction of improvement in health, especially of mothers and children. Frequent and ill-spaced child births undermine the health of the mother. A high birth rate under conditions of poverty and malnutrition is inevitably connected with a high rate of infant mortality and a high incidence of disease and deformity among children. In planning for a rising standard of life, the provision of a more healthy and joyful existence for children in the formative period of their life is a matter of great importance".²⁵ Family planning has to play a vital role in national economy of the country.

The Third Phase. The third phase of "Demographic cycle" applied on the countries such as Soviet Union, Japan, Italy, Spain, Poland, Argentina and Chile, etc. In this phase come those countries, where the birth rates ranging between 30 and 35 per thousand and death rates ranging between 20 per thousand. In the following table the crude birth rate and crude death rate are shown for selected countries".²⁶—

1936

Country	Crude Birth rate	Crude death rate
Japan	29.9	17.5
Chile	34.6	25.3
Poland	26.2	14.2
Hungary	20.4	14.3
Portugal	28.3	16.4
Bulgaria	25.6	14.1
Italy	22.4	13.7
Finland	18.1	13.1

Environment only provides opportunities but it does not compel the population to increase or decrease because "hereditary traits are not affected by any environmental influences." For this reason in some areas, instead of the presence of sufficient natural resources, the population density remains relatively lower or they are relatively sparse and undeveloped. In this way en-

24. *Population* (Bombay National Planning Committee) p. 6.

25. A Draft outline of the first Five Year Plan, pp. 206—207.

26. *International Vital Statistics, Special Reference to Reports Vol. IX, No. 36, 1942.*

environment gives much moderate and small opportunity and sets the limits of industrial as well as social wants. On the other hand, the form of population goes on changing with the development of country. In agricultural countries where population is increased, industries have to be introduced and developed to feed the increasing population. The stage of development of civilization not only affects the total population but it influences also the establishment of population.

The most important country of the third phase is U.S.S.R. "The Russians are probably at stage three of the population cycle and are multiplying about as fast as the United States."²⁷ The population increased from 147 millions in 1926 to 170 millions in 1939 and 187 millions in 1955. These areas are the newly inhabited like Siberia, but with the passage of time, it is hoped, they will also become highly populated countries, if the present rates of fertility and mortality continue. According to G. Taylor, "The birth rate of the Russians is very high, so that the population is expected to double itself in the next forty years. The forecast of 340 millions of Soviet citizens by 1975 is quite likely to be realized."²⁸

The next most important country of this group is Japan. In Japan, although the population is not great but taking into consideration its total area it is higher and consequently the population density here is higher than other countries. It was officially stated in 1940 that "If the Japanese are to be leaders of Asia, they must expand greatly in number" and the practice "of birth control must be driven out, the importance of family and race inculcated and early marriages and plentiful child bearing encouraged." But after the defeat of Japan on Pearl Harbour in 1941, the Tokyo newspaper—Japan Advertiser—announced, "The cabinet is expected today to approve a plan jointly advanced by the Welfare Ministry and Planning Board to establish a policy to ensure a sufficient population for the future development of the Japanese race. At present Japan proper has a population of 64,058,000 which the Welfare Ministry and the Planning Board would increase to 100,000,000 by 1960. Since the present birth and death rates do not insure such a population, the plan aims at reducing the present marrying age of 27 for men and 24 for women, to 24 and 21 respectively. The new standard will make it possible for an average couple to have five children, it is expected." Before the present tremendous industrial development, the population of Japan increased very rapidly, that is

27. A Report by Political & Economic Planning, *World Population and Resources*, p. 168.

28. Dr. Taylor, *Environment Race and Migration*, p. 445.

not only doubled itself but also created an enormous number of surplus population for emigration to other countries. But now the condition has become opposite specially in areas where industries and commerce have become the sources of livelihood rather than agriculture. Besides this, when Japan lost her territories such as Manchuria, Korea and Formosa as a result of her defeat in Second World War, her economic dominance and soundness collapsed, particularly in the sphere of foreign trade. The Japanese defeat also had wide repercussions on her demographic pattern and the equilibrium between her population and the resources was disturbed, posing a serious problem of over-population and the resultant deterioration in the standard of living. Now the question is, what is the remedy? One of the effective remedies to step up with the increasing population in Japan is to increase the agricultural production through modern techniques and intensive cultivation of land. "Japan is the country where the stones show human fingerprints, where the pressure of men on the earth has worn through the iron rock. There is nothing in Japan but the volcanoes and the volcanic wastes that men have not handled. There is no getting away from men anywhere, from the sights of men in the open houses or from the shape of their work in the made fields or from the smell of their dung in the paddy water."²⁹ The only remedy of increasing population to improve Japanese agriculture is to add more land. But this is not all. Land is not available on the Islands. Industrialization is often offered as a stock remedy for Japanese population problems, "Japan does not look to emigration to solve her population problems, but to a further industrialization of the country, so that this increase in the number of people in Japan will become not a reason for war, but a means whereby international trade will be increased and a hope for a continental peace strengthened."³⁰ The chances of industrializing the country rapidly are scarcer as compared to the conditions of the pre-War years. Japan no longer remains the colonial power and the countries possessing raw materials in the Far East and South-East are themselves striving hard to industrialize and use their raw materials as one of the foundation stones of industries.

The Fourth Phase. The fourth phase of population cycle is more "advanced and involves less wastage of human resources." In this phase come those countries where the birth and death rates are very low and the countries within this phase of population cycle are the United States of America, Norway, Great

²⁹ Archibald MacLish, *Japan Fortune*, Sept. 1936.

³⁰ Editorial, *Japan Afloat*, Dec. 1945.

environment gives much moderate and small opportunity and sets the limits of industrial as well as social wants. On the other hand, the form of population goes on changing with the development of country. In agricultural countries where population is increased, industries have to be introduced and developed to feed the increasing population. This stage of development of civilization not only affects the total population but it influences also the establishment of population.

The most important country of the third phase is U.S.S.R. "The Russians are probably at stage three of the population cycle and are multiplying about as fast as the United States."²⁷ The population increased from 147 millions in 1926 to 170 millions in 1939 and 187 millions in 1945. These areas are the newly inhabited like Siberia, but with the passage of time, it is hoped, they will also become highly populated countries, if the present rates of fertility and mortality continue. According to G. Taylor, "The birth rate of the Russians is very high, so that the population is expected to double itself in the next forty years. The forecast of 340 millions of Soviet citizens by 1975 is quite likely to be realized."²⁸

The next most important country of this group is Japan. In Japan, although the population is not great but taking into consideration its total area it is higher and consequently the population density here is higher than other countries. It was officially stated in 1940 that "If the Japanese are to be leaders of Asia, they must expand greatly in number" and the practice "of birth control must be driven out, the importance of family and race inculcated and early marriages and plentiful child bearing encouraged." But after the defeat of Japan on Pearl Harbour in 1941, the Tokyo newspaper—Japan Advertiser—announced, "The cabinet is expected today to approve a plan jointly advanced by the Welfare Ministry and Planning Board to establish a policy to ensure a sufficient population for the future development of the Japanese race. At present Japan proper has a population of 64,058,000 which the Welfare Ministry and the Planning Board would increase to 100,000,000 by 1960. Since the present birth and death rates do not insure such a population, the plan aims at reducing the present marrying age of 27 for men and 24 for women, to 24 and 21 respectively. The new standard will make it possible for an average couple to have five children, it is expected." Before the present tremendous industrial development, the population of Japan increased very rapidly, that is

27. A Report by Polakoff & Economic Planning, *World Population and Resources*, p. 168

28. Dr. Taylor, *Environment Race and Migration*, p. 445.

not only doubled itself but also created an enormous number of surplus population for emigration to other countries. But now the condition has become opposite specially in areas where industries and commerce have become the sources of livelihood rather than agriculture. Besides this, when Japan lost her territories such as Manchuria, Korea and Formosa as a result of her defeat in Second World War, her economic dominance and soundness collapsed, particularly in the sphere of foreign trade. The Japanese defeat also had wide repercussions on her demographic pattern and the equilibrium between her population and the resources was disturbed, posing a serious problem of over-population and the resultant deterioration in the standard of living. Now the question is, what is the remedy? One of the effective remedies to step up with the increasing population in Japan is to increase the agricultural production through modern techniques and intensive cultivation of land. "Japan is the country where the stones show human fingerprints, where the pressure of men on the earth has worn through the iron rock. There is nothing in Japan but the volcanoes and the volcanic wastes that men have not handled. There is no getting away from men anywhere; from the sights of men in the open houses or from the shape of their work in the made fields or from the smell of their dung in the paddy water."²⁹ The only remedy of increasing population to improve Japanese agriculture is to add more land. But this is not all. Land is not available on the Islands. Industrialization is often offered as a stock remedy for Japanese population problems, "Japan does not look to emigration to solve her population problems, but to a further industrialization of the country, so that this increase in the number of people in Japan will become not a reason for war, but a means whereby international trade will be increased and a hope for a continental peace strengthened."³⁰ The chances of industrializing the country rapidly are scarcer as compared to the conditions of the pre-War years. Japan no longer remains the colonial power and the countries possessing raw materials in the Far East and South-East are themselves striving hard to industrialize and use their raw materials as one of the foundation stones of industries.

The Fourth Phase. The fourth phase of population cycle is more "advanced and involves less wastage of human resources." In this phase come those countries where the birth and death rates are very low and the countries within this phase of population cycle are the United States of America, Norway, Great

29. Archibald MacLish, *Japan Fortune*, Sept. 1936.

30. Editorial, *Japan Asvertiser*, Dec. 1945.

Britain, France, Denmark, Germany, Poland, Hungary, Belgium, Austria, Sweden, etc. The following table gives the figures of birth and death rates.³¹

1936

Country	Crude birth rate	Crude death rate
U. S. A.	16.7	11.5
England & Wales	14.8	12.1
Germany	19.0	11.8
Sweden	14.2	12.0
Denmark	17.8	11.0
Norway	14.8	10.3
Netherlands	22.2	8.0
Australia	17.1	9.4
New Zealand	16.6	8.7

The U. S. A. has 162 million people and is growing by 1.8 percent per year, but its total resource, are sufficient to ensure a constantly rising standard of living over the next generation. The economy of these countries is expanding very rapidly on the basis of vast material resources. The government is playing an important role in the various forms of economic and technical assistance

In the above mentioned countries the birth and death rates are very low. In all European countries, the decline in birth rate received a slight check during the World War Second. But there was a sharp rise in the number of children born after Second World War, the birth-death rates soon became stable, due to "more deaths and fewer births,"³² resulting in a small and steady growth of population. In brief, those European countries with declining birth-rates are willing to allow their able citizens to emigrate. As Dr. Julius Isaac admitted that the emigrants of high birth rate to sending declining birth in European countries has raised the population. He points out, "Before the outbreak of the 1939 war, it seemed probable that the agricultural states of Eastern and South Eastern Europe—the main source of the new emigration since about 1880 might in the near future expect a large natural increase in population, in spite of their falling gross reproduction rate, from a fall in the death rate due to a steady improvement in social conditions and health services. As the population in these countries has been and still is extremely

31. International Vital Statistics, Summary Vital Statistics—Special Reports, Vol. ix No. 36, 1947.

32. F. W. Notestein, *The Future Population of Europe and Soviet Union*, p. 46.

hard hit by the devastation of the war, these expectations will scarcely materialize soon after the war. It may, therefore, be safely assumed that a change in mortality will not significantly alter the prospect of population decline in Europe."³³

Switzerland is a representative country that has built a high standard of living with a population that is dense in relation to its cultivated area and with only water-power and scenic beauty as natural resources. The other factor is the good location in relation to other countries which is favourable to industries and commerce. Coal and iron, the foundation pillars of modern civilization, are found in abundance in Europe. Besides these two fundamental minerals, others also occur there. The climate is favourable for physical exertion. These factors combined together helped the early growth of industries in these countries. On the other hand, North-East United States also possess the same locational advantages as Great Britain and other European countries.

The Fifth Phase of Population Cycle. The fifth and the final phase of the "Demographic Cycle" is characterized by an actual decline in the total population of a country by means of an excess of deaths over births. A perusal of the world's population indicates that such situations arise not so much of an excess of high death rates over the birth rates as through a considerably low birth rate. The effects of such trend in population growth tend to be serious, when such a phase becomes permanent. The remedy lies in giving a stimulus to increasing birth rates and greater volume of immigration. Under such depopulation trends, the danger of a kind of "race suicide" is likely to come into force, but it does not imply the total disappearance of a human stock from certain parts of the earth. The "Demographic Cycle" in respect of various countries of the world as explained by Dr. Blacker, "The depopulation of Islands such as Tasmania, where none of the original native inhabitants survive, or the Tropical Oceania where they have been much reduced; or the disappearance of native races from areas of a continent, as the North America Indians have disappeared from many of their original hunting grounds, are to be counted rather as a reaction to the spread over the globe of the white man than as an autonomous phase in a demographic cycle. In recent times, France is the only country which has experienced an actual excess of deaths over births for more than a momentary period; and there are signs that, perhaps, as a result of very energetic measures taken since the end of the Second World War, this trend is being reversed."³⁴

In the above mentioned quotation Blacker includes France in the final phase of population cycle due to excessive death rates

33. Julius Isaac, *Economics of Migration*, pp 80-81.

34. C. F. Blacker, *Stages of Population Growth*, 1942.

over the birth rates. Three most important effects of this decline are noteworthy; Firstly, the slow growth of the French population in the end of the nineteenth and beginning of the twentieth centuries. Secondly, the decline of "French fertility was on age structure; old people became more numerous in relation to the young." And thirdly, the social philosophy that is to say the control of celibacy, the postponement of marriage, the spread of "coitus interruptus" and the widening practice of abortion are thought to have contributed to the decline."³⁵ The combination of high mortality and low fertility caused a continuous excess of deaths over births. The following table shows a comparison with England and Wales and Sweden. The table given below has been taken from "A Report of PEP," published in September 1955.³⁶

*Crude Death-rates of France, England and Wales and Sweden
1921-45.*

Rate a thousand Population

Countries	1921-25	1926-30	1931-35	1936-40	1941-45
France	17.2	16.8	15.7	16.3	17.3
England & Wales	12.2	12.1	20.0	12.6	12.8
Sweden	12.1	12.1	11.6	11.7	10.6

The following table shows that the infant mortality rates of France have also been high in comparison with England and Wales, U. S. A., Sweden and Switzerland.³⁷

(Infant Mortality Rates—Deaths under one year a 1000 live births—in France and four other countries, 1921-50).

Period	France	England & Wales	U. S. A.	Sweden	Switzerland
1921-25	95	76	74	60	65
1926-30	89	68	68	58	54
1931-35	73	62	59	50	48
1936-40	71	55	52	42	45
1941-45	81	50	41	31	40
1946-50	58	36	32	24	36

The "demographic cycle" looked from the purview of total world population at a certain given time stands in different stages

35. A Report of Political Economic Planning in world Population &

Resources pp. 199-200.

36. PEP, Sept. 1955 p. 201.

37. Op. Cit., p. 201.

in different countries of the world. The harmony in the stages of demographic cycle does not and as a matter of fact, cannot exist in the population of different nations. The demographic cycle can be reckoned from the standpoint of the socio-economic history of a country. This criterion can be applied to gauge the demographic history of an advanced country. Taking Great Britain as an example, she stood in the first phase of demographic cycle prior to the industrial and agricultural Revolutions. With the approach of Industrial revolution better sanitary conditions were brought about together with the rising living standards as a result of emigration, colonialism, greater production and greater consumption, she stepped into the second and subsequent phases and with the still more scientific and industrial development, Britain achieved her present low equilibrium level. (Map No. 17 shows the stages of demographic cycle of the world).

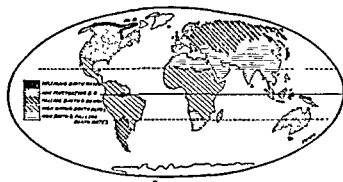


Fig. 17. Stages of the Demographic Cycle (This map has been reproduced from PEF 1955 with slight modification)

Land Utilization And Population Problems. There is no country of the world where the population problem in any form, is not confronted. In countries where the per capita income is great and the nation is prosperous, the population problems are not very severe. In contrast to this in those countries where the per capita income is very low there is greater unemployment and the excess population becomes a burden to the nation. It only happened when the natural resources of that country are not exploited to the fullest extent and the use of the natural resources is smaller than the population.

According to the F. A. O. Statistical Year Book 1951, the-

population of the world in 1950 was 2,408 millions, the following table gives the population and density³³:—

Estimated world population in 1937 and 1950 and densities in 1950.

Countries	Area in sq. miles (millions)	Population 1937	Population (millions) 1950	% Increase	Density per sq. mile.
Asia (excluding U.S.S.R.)	10.38	1,139	1,273	12	122
Europe (excluding U.S.S.R.)	1.90	371	394	6	207
U.S.S.R.	8.59	183	203	7	24
Africa	11.78	169	198	18	17
America:	9.37				
North	7.30	140	166	19	23
Central	2.07	39	50	28	25
America:					
South	6.86	84	110	31	16
Oceania	3.30	11	13	20	4
World excluding ice covered regions	52.18	2,142	2,407	12	46

As the above table shows that half of the total population of the world is to be found in Southern and Eastern Asia, and about 16 percent in Europe, and about 7 or 9 per cent in the U. S. S. R., North and South America and Africa. The population densities per square mile vary considerably, ranging from 207 to 3. Many fundamental elements are noteworthy for this uneven distribution of population in the world. The favourable or otherwise circumstances of human habitation and the human ability of making unfavourable areas favourable for human habitation and the current of civilization are the factors that influence the distribution of human beings in the world. In spite of excessive density of population in certain regions of the world about half of the total area of the earth is now empty. As Dr. East observed, "The human race has had a history of at least 10,000 years since it developed enough mental-

33. F. A. O. Stat. Year Book, 1951.

lity to leave written records, yet in all this time the natural increase was so slow that in the year of our Lord 1800 there were only some 850 million people. Since that time, in a hundred years the population has doubled.

"The world has had a continuous natural increase annually for the past century of about 0.7 percent, and the increase at present is greater than at any time in the past. My own estimate of this current annual increase is 15 million. In 1800 not a single country had reached a point where the population was pressing heavily upon subsistence in present day terms.....To-day the story is different; China is full to overflowing; India and Japan have passed the saturation point according to Western standard of living. The Australians living on the rim of barren desert-bowl are increasing at the rate of about 18 per thousand, a rate which their agricultural possibilities cannot stand for long. The United States have reached the point where there are diminishing returns in crop production.

"A careful study of available statistics shows that it takes about 2.5 acres to support each individual. It is, therefore, necessary to cultivate some 37 million acres more land each year than was ever so treated beforeTake out the mountains, deserts, the undrainable swamps, in short, the areas not available for agriculture and there is left 13,000 million acres (out of 33,000 million acres of land) of this potential world farm, some 5000 million acres are now being cared for by the hand of man..... The total available of 13000 million acres will support a little over 5000 million people.""³⁹ Dr. E. M. East considers the optimism of certain cultivators "who pin their faith to scientific research." He observes, "The true increase in production by more efficient methods of farming.....may be as high as 50 percent. But it is offset and masked by the bringing into cultivation of poorer new lands. I cannot see in this prospect anything but temporary expediency. In any permanent system of agriculture the soil and the climate are the true arbiters of production."⁴⁰

Dr. O. E. Baker is somewhat more optimistic, and sums up the problem as regards the whole world in the following table. The table shows the major land utilization zones of the world. We see in the previous quotations that only 42 million square miles, out of 52.0 millions, are "potentially arable, and remain to be exploited by future generations."

³⁹. Population in Relation to agriculture—in *Engines in Race & State*, Dr. E. M. East.

⁴⁰. *Op. Cit.*

Arable lands of the earth⁴¹

Lands	In millions of square miles	
	Tropical & Sub-tropical zones	Temperate Zones
1. Too arid for crops	8.0	7.6
2. Too cold for crops	.	6.4
3. Uncultivable	10.0	10.4
4. Pasture (cultivable)	0.6	1.5
5. Cultivated at present	1.2	2.5
6. Potential Arable—not used for crops or pasture	3.2	1.0
Total land area	23.0	29.0
(i) Land with adequate rainfall	15.0	15.0
(ii) Probably ultimately arable	5.0	5.0

From very early times, man has been migrating in search of good and empty lands from over-crowded countries. The present population of North America is a gift of such migrations. Human migration goes on increasing until the time when political and social hindrances stops it. As a matter of fact migration of human beings, goes on uninterrupted in every country in every age, like a continuous current. People lured by a better prospective and good standard of life, go from their homelands to other attractive and pioneer areas. But this migration does not take place in all areas to the same extent. In areas where the population-supporting capacity of land is deficient, migration starts as soon as the population begins to increase. In this way the distribution of population is greatly affected by migration, and along with the variation in the population distribution, the human economic activities also become varied. The form of population goes on changing with the development of a country. In agricultural countries when population is increased, industries have to be introduced to feed the increasing population. In the primary stage of industrial revolution the increase of population was continuous, which helped the industries to develop rapidly, especially in European countries. Before the present tremendous industrial development, the population of Europe increased so rapidly that it not only doubled itself but also created an enormous number of surplus population for emigration.

⁴¹ *Land Utilization in the United States*, Geographical Review, 1925, Vol. XIII, p. 25.

to other countries. But now the condition has become opposite specially in areas where industries and commerce have become the only means of livelihood rather than agriculture. In such areas the population has declined consequently. Europe could not experience such increase in the 1940 decade as it had in the decade 1920-30. In both the decades the increase was smallest in Central and Western Europe and went on increasing in the south and east and become highest in Soviet Union. The population of France, Germany, England and Wales, and Italy has declined. It is estimated that by 1970 the population of British Isles will decrease from 50.2 (1955) to 46.8 millions. Soviet Union is the only country in the western world where the population is still increasing. The other countries of Europe (excluding Soviet Union) reached their climax of population increase by 1960 and after that period it is decreasing. In brief, the characteristic trend of Europe's population can be summarized in the words of Dr. Notestein, 'Europe would have reached a maximum population of 421 million about 1960 and from then on would have declined at an accelerating pace.'

"The projections indicate a relatively constant population of about 420 million for Europe, to be reached about 1955 and to continue at least to 1970. Under the assumptions made, the European population will vary less than 2 per cent from 420 million in this fifteen year period. That Europe should reach an end to rapid population growth was a foregone conclusion. No continent can continue indefinitely to increase at the rate that Europe was growing in the modern era."⁴¹

Assuming that the present trends continue, the population pattern of Europe and Soviet Union will change considerably in the next twenty years. The following table worked out by Political Economic Planning shows the possible trends of growth⁴²:-

Estimated populations of Europe and U. S. S. R. if the present trends continue:-

Countries	1000,000 (In Millions)		
	1940	1955	1970
British Isles	50.2	50.2	46.8
Europe: Western & Central	163.6	166.0	159.6

⁴¹. Dr. F. W. Notestein, *The Future Population of Europe and the Soviet Union*, p. 46.

⁴². P. E. P. Sept. 1955.

Northern	20.1	20.5	19.5
Northern, West & Central	234	237	225
Europe:			
Southern	77.5	84.1	86.5
Eastern	87.7	98.5	105.0
South & East	165	183	192
All Europe, except U. S. S. R.	399	419	192
U. S. S. R. (Pre-war area) adjusted for war losses.	174	216 192	251 222

For centuries the population of Western world remained confined around the Mediterranean sea, and only after the tremendous increase, it began to spread towards the empty lands. There are also vast potentially arable voids in South America and Oceania. Dr. Radhakamal Mukerjee is somewhat more optimistic, and sums up the problem as regards the whole world in the following quotation, "The total extent of the unused lands which may immediately be given over to the plough is about 4.2 million square miles. Of these the peripheral lands fringing China, India and Japan have been fields of successful agricultural colonisation of their land-hungry peasants. There are vast, rich inter-tropical lands which are now taken up by grass-lands and forests, whether in South America, Africa, South Asia or Australia, to which entry is, however, restricted or completely barred for Asiatic colonists because of race prejudice or national exclusiveness; while no kind of economic cooperation of the peoples is forthcoming to extend the agricultural front to the marginal zones, which are too arid, cold or wet..... The prairie provinces of Canada, and the coniferous forest areas in Siberia are still empty..... Mongolia is thinly populated..... vast tropical lands in Central and South America, Africa, Australia and the islands of the East Indian Archipelago are almost empty."⁴¹

According to the Australian commonwealth statistician Mr. G.H. Knibbs the earth's population may be taken as 1,500 million and the land area of the earth (excluding Polar regions) at about 33,000 million acres. If we could raise 22.8 bushels of food corn per acre per annum, the total yield would be 752,400

41. *The Political Economy of Population*, p. 361.

million bushels of food corn. The per capita food consumption per annum is about equivalent to 5.7 bushels—which on the above computation would feed 132,000 million people. Continues the Australian Commonwealth statistician Mr Knibbs, "At the rate of increase of population of 0.01 % per annum (somewhat less than the rate for all countries which have accurate statistics) it would require only 450 years to exhaust the food requirements mentioned The fundamental element in Malthus contention is thus seen to be completely established." Now the question is: What is the remedy? One of the effective remedies to set up with the increasing population of the world is to increase the production of agriculture through replanning of land. There is at the present time a pressing need for considerable replanning of land use in the world, a need created by the two factors. In the first place there is the entirely internal problem of population increase, at a greater rate than the means of production are able to satisfy the increased demand. Secondly, for the planning of national economy A system involving the retention of land under cultivation for a period of years followed by a period of fallow in order that it may regain its fertility requires that a favourable balance be maintained between the size of the increasing population and the amount of land available to farm. Among its objectives is the farming of recommendations with reference to⁴⁵:—

- (i) The adaptations or modifications in traditional old systems of tenure necessary for the full development of the land.
- (ii) The economic development of the land already in occupation by the introduction of better farming methods.
- (iii) How unused lands should be utilized? and what kind of crop rotation be adopted for a particular country.

According to Samuel Wadhan, R. Kent Wilson and Joyce Wood a land utilization survey must start with two main questions⁴⁶:—

- (i) What proportion of the land is not being used at all? From this will follow an examination of the reasons why the unused portion has been neglected.
- (ii) The second main question will be: How intensively is the occupied portion being used?

45. *Geography*, Vol. XL.

46. Wadhan & Wood, *Land Utilization in Australia*

According to R. Mukerjee the empty lands of the world hold out greater possibilities of additional food production to

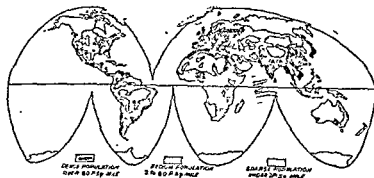


Fig. 18. Population Density and Empty lands of the World.

feed the increasing population. The following table shows the major empty land of the world with estimates of their population capacity.⁴⁷

Population (Millions)	Land Area (Sq. Miles 660 Omitted)	Persons per sq. mile	% of cul- tivated land to total area	Popula- tion ca- pacity (mi- llions)	Imm- gra- tion capacity '(millions)
Asia					
Siberia	14.3	4,352	5	3.0	75(D. Stamp)
Manchuria	33.8	460	73	15.1	70-75
Netherlands	19.0	683	28	...	150
Indies (Excluding Java and Madura)					131
Philippines	14.0	114	104	12.5	100 (Cruz)
Oceania					
Australia	6.5	2,975	2.2	1.32	20-60 G. Taylor)
New Zealand	1.6	103	15	2.9	20
Africa	135	10,384	13	...	1,650 2,300 (Fischer; Penck)
					1515 2165

47. Dr. Mukerjee, *Political Economy of Population*, p. 361.

North America						
U. S. A.	122	2,974	42	18.87	300-350 (Lescohier, USA Deptt. of Agri.)	178-228
Canada	10	3,457	4	2.7	100-250 (Kimble, Leacock)	90-240
South America						
Argentina	12.5	1,079	13	10.75	150	137.5
Brazil	42.4	3,291	13	8.00	430-1200 Friedrick Freise Penck	387.6 1157.6

Agriculture is now the most important use of land by man. The problem is to use the land for what it is fit for according to the capabilities of the soil and to raise the soil fertility and moisture and take the maximum output that it is capable of. This question of the use of land so that it produces most over a long period of time has come to be mis-called soil conservation "which is the negative aspect of preventing deterioration." The most important cause of erosion is destruction of forests and other vegetation from sloping lands, desert margins and other areas susceptible to erosion. Forests, for example, provide the most effective protection against erosion on hilly tracts. Destruction of trees and natural grasses in dry areas has similar harmful effects. Trees act as wind-breaks, reducing the force of the wind, and the grasses bind the sandy soils. "Soil conservation in its widest sense includes not only control over erosion but all those measures like correction of soil defects, application of manures and fertilizers, proper crop rotations, irrigation, drainage etc. which aim at maintaining the productivity of the soil at a high level." In this sense, soil conservation is closely allied to improvement of land use in general, with increasing population, increasing production is necessary and therefore to build up the soil fertility and moisture.

LAND AND MAN

The story of man's use and misuse of land goes back to pre-history. In the ancient society only the gathering of wild fruits and hunting of animals were the main occupation. The first man was hunter then shepherd and last agriculturists. In the last stage he discovered that he could collect seeds and grow them, and raise a crop. The original homes of wheat, barley, rice and rye and other crops like ground-nuts, sugar-cane etc., have now

been located in different portions of the globe which are associated with original human settlers. Large groups settled in river valleys in agricultural colonies. In the primary era of human civilization agriculture remained immature. This was due to the fact that only the fertile land was cultivated and the comparatively smaller fertile land was left uncultivated. In this way the balance of nature prevailed. That was the time of largest voids and small populations. But now the condition has become opposite. So that planning for future development and increased production must be preceded by the adequate survey of existing conditions so that, as far as possible, may be made the basis for the new development.

Indian agriculture is characterised by low investment and uncertain returns. While our best cultivators produce as much as anyone in the other country, the average crop per acre is the lowest. The population of India according to the census of 1951 was 356,879,485.* The Indian Republic has an area of 1259,983 square miles, of this only 528.3 million acres are classified. The utilization of land in 1950 was as follows⁴²:—

Figures in Million acres

Gross	Classified	Cultivable	Land Area	Irrigated	Cultivable but not sown
781	536	370	236	49	134
729	528	366	231	48	133

The area cultivable but not sown includes about 35 million acres of fallow and the area not cultivable includes some 54 million acres of forest. The average area of sown land per head of population is 0.60 acres. The following table shows the percentage and agricultural area of the Indian Republic. According to the latest available statistics for the Indian Republic, the cultivable waste is about 11 percent of the total available land of India.

Agricultural area of the Indian Republic, 1950

	Millions of acres	Percentage
Net area by professional survey	781	100
Area under Forest	109	14
Area not available for cultivation	255	33
Cultivable waste other than fallow	89	11
Fallow land	54	7
Net area shown with crops	275	35

*This figure did not take into account the Population to State of Jammu and Kashmir and tribal population of Assam.

⁴². Report of the Planning Commission, New Delhi, 1950.

Out of 417 million acres of cultivable area, only 66 percent is sown with crops, 13 percent is fallow, and 21 percent of land is cultivable waste. Then there is land "not available for cultivation." As Royal Agricultural Commission of India pointed out, "It is difficult to believe that the whole of the vast area now classed as not available for cultivation, amounting as it does to 150 million acres or 22.5 percent of the total area of British India is either not available for cultivation or not suitable for cultivation."

The sown area is very unevenly distributed in India, 80% of it is included in nine States which between them comprise only 58 percent of the gross area. The following table shows the chief food producing states and land utilization of the Indian Republic.

Land Utilization of the Chief Food Producing States of India 1950.

(Figures in Million Acres)

State	Sown area	Cultivable area	Sown as % of cultivable.	Irrigated area	Irrigated as % of sown
Uttar Pradesh	38.1	50.8	75	12.6	33
Madras	31.6	52.1	61	9.9	31
Bombay	28.2	34.7	81	1.4	5
Madhya Pradesh	24.2	42.4	57	1.7	7
Bihar	17.6	31.3	56	5.3	30
The Punjab	11.9	16.1	74	6.0	51
W. Bengal	11.2	14.1	80	1.8	16
Orissa	6.5	11.0	59	1.3	21
Assam	5.2	24.1	22	1.0	21
TOTAL	174.7	276.7	63	41.2	22
Hyderabad	22.5	38.5	58	1.4	6
Mysore	6.2	10.3	60	1.1	18
Union of India	235.8	369.7	64	49.3	21.

The high man to land ratio in some areas has led to use of marginal and sometimes unfit soils for the more exhausting form of land use namely crop production. The population of India too measures about 45 crores now and nearly half of it is concentrated

in the river valleys. The climate of Eastern India is more humid and due to the presence of wide and fertile river plains the population density is naturally great. In Western India, the population density bears a close relationship with the amount of rainfall. In the Himalayan foot hills, although the climate is suitable but due to the scarcity of level land, the agriculture is difficult to practise and the population density is small. In the Deccan Peninsula, the topographical features do not allow agriculture to be carried on successfully, excluding coastal areas, the population is sparse.

The population of India is increasing at a faster rate than her food supply. The problem of feeding India, however, will remain insoluble if the population continues to increase at its present rate. If the present rate of fertility continues the population of India will reach the figure of 43 crores in 1961, 46 crores in 1971 and 52 crores in 1981.

The following are the population figures (1961) with male and female populations and density ratios:—

State	Area Sq. miles	Males	Females	Total	Percent Increase.
Andhra Pradesh	106,052	18,175,349	17,802,650	35,977,999	15.63
Assam	47,098	6,318,229	5,541,830	11,860,059	34.30
Bihar	67,198	23,328,178	23,128,864	46,457,042	19.78
Gujarat	72,154	10,636,470	9,984,813	20,621,213	26.80
J. & Kashmir		1,902,902	1,680,683	3,583,583	9.73
Kerala	15,003	8,345,897	8,529,802	16,875,199	24.55
Madhya Pradesh	171,210	16,598,526	15,795,849	32,394,375	24.25
Madras	50,132	16,915,454	16,735,463	33,650,917	11.73
Maharashtra	18,884	20,419,059	19,085,235	39,504,294	23.44
Mysore	74,122	12,021,248	11,525,833	23,547,081	21.36
Orissa	60,162	3,772,194	3,793,451	7,565,645	19.94
Punjab	47,084	10,866,910	9,431,241	20,298,151	25.80
Rajasthan	132,150	10,558,138	9,588,035	20,146,173	26.14
Uttar Pradesh	113,454	38,664,463	35,088,451	73,752,914	16.67
West Bengal	33,928	18,611,085	16,356,549	34,967,634	32.94
Indian Republic	1,127,345	224,957,983	211,466,481	436,424,429	21.49

In China about 80 percent of the total population is rural and ekeout their livelihood from agriculture. According to T. H. Shen the old Imperial China covered an area of $4\frac{1}{2}$ million square miles, but lost some of its provinces later on:

(Figure in Million acres)

	Land Area	Cultivated	Forest
Old Imperial China	2900	...	...
China of 1947	2330	225	208
Twenty two provinces	1250	180	...
Manchuria	264	35	...

The population of China according to F. A. O. as 452 millions in 1937 and in 1950 was 463 millions. According to Dr. S. Chandrasekhar it is possible, if not probable, for China to have within her frontiers a thousand million around 1980, if her death rate continues to decline and her birth rate remains even stationary. Thus China's population may increase at the most conservative estimate some what as follows:—

1956	630 Millions
1961	700 Millions
1966	770 Millions
1971	850 Millions
1976	930 Millions
1981	1000 Millions or more.

Can China feed and generally take care of her millions? Will world provide any out-lets? But the international Famine Relief Commission, after exploring various possible solutions, for the Chinese population problem, pointed out, "If other nations open wide their doors to Chinese emigrants, if all the ships engaged in intercontinental passenger traffic on the seven seas were withdrawn from their usual routes and devoted themselves henceforth solely to transporting Chinese from their native land to other countries, it is believed that they could not keep pace with the year by year increase of population."⁴⁹ But the optimistic side of population of China, the conclusion of the commission was native.

As far as agriculture is concerned less than only ten percent of land is cultivated, and per capita holding is about half an acre. The low utilization of the land is the result of bad topography and uneven rainfall. Only the eastern portion of China receives high rainfall, and the western part of the country is arid. The average yields are going down. Many factors are responsible for that. Soil erosion is one of the most important factors.

49. China International Famine Relief Commission, Annual Report, 1929.

The loss of fertile surface soil from the farms of the country alone represents an enormous economic loss. Defective land tenure, old systems of cultivation, scarcity of Chemical fertilizers, these factors are responsible for low yields of agricultural production in China. The total agricultural production can be increased by better farming practices, better seeds, crop rotation and utilization of Chemical fertilizers.

According to Pierre Gourou how unused land of China should be utilized? He observes: "It may be of interest to try to evaluate, in very schematic fashion, the possible effects of a new disposition of China's abandoned lands. One square kilometer, newly reforested, would support 10 persons, if, therefore, one per cent (35000 sq. miles) of the total area of China were reforested, useful employment would be provided for 350,000 persons. One square kilometer under orchards could provide an adequate living for 100 peasants; therefore, if 10 percent of the national domain were under orchards, it could support 35 million peasants. One square kilometer of grassland could support 20 to 30 livestock farmers; if one per cent of the total area were under grass, it could thus support approximately one million persons. Accordingly, if 10 percent of the total area were reforested, 10 percent transformed into orchards and free crop plantations, and 20 percent into grassland, some sixty million settlers could be attracted to the new enterprises and thus be drawn off from the 300 million peasants who are to-day crowded into the cultivated land. A considerable proportion (33 percent) of waste land would still remain."³⁰ That is to say if only 70 percent of this unused land is put into use it could support 60 millions.

In contrast to these densely populated countries, the South Eastern Asian countries such as Malaya, Burma, Indonesia etc. contain moderate densities per square mile, (excluding Java). The population pressure is not so great on the cultivable land, excepting Java. The Java island is densely populated, and sometimes the density of population is over 1100 persons per square mile. One reason for this dense population of Java is the fertile volcanic soils. Secondly, the Dutch colonizers made it their colony and developed plantation agriculture on the basis of local cheap labour. The population rose by 20 percent between 1920 and 1930 and was estimated to rise by 30% during the next twenty years.³¹

Population in millions in Java

1920	49.3
1930	60.7
1950	78.0

30. Gourou, Notes on China's unused uplands, Pacific Affairs, Sept, 1948, p. 215.

31. Statesman's Year Book, 1952.

The western immigrants came and settled there permanently; crop-yield per acre was increased by the use of scientific agricultural implements. The climate is already favourable for the crops to be cultivated throughout the year. Several other crops along with rice, are grown on the same field. According to the Statesman's Year Book of 1952, the output of plantation crops other than rubber in Java has fallen considerably:⁵²

	1940	1950
Rubber	548	523 (figures in thousand
Cocoa	1.55	0.87 metric tons).
Coffee	77.6	35.4
Tobacco	27.4	12.0
Cinchona	16.4	5.6

If we compare the dense population of Java with sparse population of Malaya, we find some cultural facts lying behind this unequal distribution. Like Java the plantation agriculture is also to be found here. But in Malaya, the aim of westerners was not to settle there permanently but only to gain their economic end by the maximum exploitation of that country. Other countries in the South East Asia are still in various stages of revolution.

From Western Pakistan towards west and north, we find the arid climatic condition and consequently the density of population is very sparse. Dense human agglomerations are only found in the lower valleys of the rivers and low reaches of mountains where water is available. The following table shows the population of Pakistan and the quantities of food crops:

The quantities of food crops produced per capita of population, 1950.

	Punjab	West Pakistan	East Pakistan	All Pakistan
Food Crops (Million Tons)	5.1	1.8	8.5	15.4
Population (millions)	18.8	14.7	42.1	74.6
Food crops Lbs. per head of population:				
Total	700	274	452	453

Pakistan has an area of 234.3 million acres of which about 56½ million are cultivated and there are some 12½ million acres of fallow. The land utilization data for both the wings of Pakistan are given below:⁵³

⁵² *Op. cit.*, 1952.

⁵³ Pakistan Government Statistics.

Land Utilization in Peking'an (Million acres) 1949-50.

	Punjab	West	East	All Pakistan
Total area	37.1	83.7	34.3	118
Area of crops	18.2	30.7	25.8	56.5
Including double cropped	1.3	2.6	6.1	8.7
Area Irrigated	11.9	21.3	0.2	21.5
Fallow	2.8	9.9	2.3	12.2
Other uncultivated	9.6	19.0	4.2	23.2

The Punjab *i.e.* Western Punjab, is the most productive portion of Western Pakistan, about 12 million acres being irrigated, wheat and cotton are the most important crops. But as a whole, owing to the density of the population the holdings are very small. North-West Frontier Province is the other important food producing region of Pakistan, which has classified area of about 8.6 million acres, of which 2.45 million are sown, about half being irrigated; some of this is double cropped so that the total cropped area is 2.7 million acres. Almost the entire rainfall in this part is due to cyclonic storms and is received during the winter season. Naturally, excellent fruits can be grown, but transport is very difficult.

The South coast of Western Asia is extremely arid for human settlement and only in those areas where minerals occur human settlements developed in the form of ports and harbours. South West Asia has large uninhabited areas.

No country of the world represents the diversities more than Israel either economically or socially. The total geographical area of old Palestine had been 6.6 million acres, that of Israel is 5.06 million acres, but large proportion of the country is absolute desert. The population of the country (1950) was 1.29 millions but immigrants since have come in at the rate of about 200,000 annually. The population of 1952 was 1.585 millions of whom 1.411 millions were Jews. But land use statistics are available for only about 868 thousand acres which are as follows³⁴:—

	1918-49	1950-51	1951-52
Unirrigated field crops and fallow	266.5	673.5	650
Irrigated fodder, etc.	16.25	29.5	31.8
Vegetables and potatoes	17.25	39.25	48.2
Fruit Plantations	90	98	102.5
Fish ponds	3.75	6.75	7.5
Miscellaneous	18.25	26.5	28.0
	412.5	837.5	868.0

³⁴ Stat. News, Vol. 3, No. 9 or Government Year Book, p. 312, 1954.

0.15 acre per head, the lowest in the whole world. With the possible exception of China and India, Japan is the third largest populated country in Asia. The following table shows the growth of the population in Japan since 1900:

Year	Total Population
1900	44,285,000
1910	50,743,000
1920	55,963,000
1930	64,450,000
1940	73,114,000
1945	72,349,000
1946	73,114,308
1947	78,600,000
1948	78,627,000
1949	82,603,000
1952	85,500,000

Most of Japan is mountainous and agriculture is carried on only in 16% of the total land area of the country. The level land area is mostly confined to the Eastern coast of Japan. On the Eastern plains of Japan are located the great industrial centres, such as Tokyo, Yokohama, Kobe-Osaka, Kyoto industrial regions. Here is found about one-half of Japan's population.

The chief crop of Japan is rice, which occupies about half the cropped land; the remainder land carries a greater variety of crops such as potatoes, oil seeds, millets, beans, oats, barley, wheat and other vegetables. The following table shows the acreages and production of the chief crops of Japan.

Acreage yield and production of chief crops of Japan⁵⁶

	Million acres		Million tons	
	1934-38	1950	1934-38	1950
Rice	7.8	7.4	11.5	12.0
Barley	1.9	2.5	1.55	1.96
Wheat	1.7	1.9	1.29	1.34
Sweet Potatoes	0.61	0.95	3.06	6.29
Potatoes	0.37	0.46	1.62	2.44
Peas and Beans	0.67	0.29	0.27	0.13
Soybeans	0.80	0.75	0.32	0.33
	13.85	14.28		

Meanwhile, the pressure of population on land goes on increasing from year to year and food production shows no sign of overtaking it. But to solve the food problem of Japan the United States has taken deep interest and some solution of food problem will be found.

The pattern of population distribution in Europe is mainly influenced by the physical as well as cultural features of that continent. There are human agglomerations in the river deltas but the agricultural population is not so dense as in India or China. Large human concentrations are to be found in industrial areas. The importance of coastal location for foreign trade is very remarkable.

Britain is the most important country of Europe, whose population increased from 7 millions in 1700 to 40.0 millions in 1931 and 48.8 in 1931. The production of food differs in various parts of the country according to the soil, climatic and other conditions. The population of Britain had become accustomed to a much higher standard of living, particularly to more meat and dairy products, which require more land for their production. Britain can supply only about half the population's food needs from its own farm land, it is important to get the best out of every acre that is worth cultivating. The area of cultivated land per head of population is 62 acres. A comparative study of the size of the holdings also holds out in the following order:—

U. S. A.	145 Acres.
Britain	62 Acres.
France	20 Acres.
Germany	21 Acres.
India	7.5 Acres.

That there is heavy burden on land is amply clear from the following comparison of percentage of population that depends on agriculture for its living.

U. S. A.	12.8%
India	70.6%
U. K.	50%

According to John Russell the permanent grass land in England, which before the war occupied 18.8 million acres of land and formed 60 percent of the cultivable land of the United Kingdom, was now reduced to about 40 percent, that is to say 11.7 million acres, and the arable land increased by 6.3 million acres, 5.6 million being in England and Wales. Agriculture in England, like agriculture in other European countries, is carried out entirely by machinery and the number of agricultural and Horticul-

tural tractors in 1952 was estimated in England and Wales about 325 thousand, and other increases were⁵⁷—

	Thousands			Thousands	
	1946	1952		1946	1952
Petrol and Oil Engines	155	222	Potato planter	5.7	17.0
Electric Motors	48	107	Pickup balers	1.7	11.4
Milking machines	40	81			

Wheat and Barley are by far the most important crops. Wheat is grown throughout Britain, south of the Scottish Highlands, for in the northern countries of Scotland the summer temperature is not high enough to ripen the grain. Barley grows under conditions similar to those for wheat. The chief growing districts are Norfolk, Suffolk, Lincoln, Cambridge, Huntingdon and the Vale of York and Holderness. The area of non-agricultural use includes forests, waste and moorland used for grazing, of the 60 million acres of land in United Kingdom little more than half is actually cultivated, but a further 30 percent of rough grazing brings the total in agricultural use to 80 percent. The following table shows the land Utilization in the United Kingdom⁵⁸

Land Utilization in the U. K.

		England & Wales	Scotland	Northern Ireland	U. K.
Arable land	1939	8.93	2.94	1.04	12.91
	1944	14.57	3.37	1.34	19.29
	1950	13.94	3.21	1.20	18.36
	1951	13.68	3.19	1.13	18.00
Permanent Grass	...	...	...	...	...
	1939	15.71	1.62	1.44	18.77
	1944	9.76	1.05	0.93	11.74
	1950	10.51	1.19	1.08	12.77
	1951	10.79	1.20	1.14	13.13
Total cultivated	...	...	...	...	...
	1939	24.64	4.56	2.48	31.68
	1944	24.32	4.46	2.29	31.01
	1950	24.44	4.41	2.28	31.13
	1951	24.47	4.39	2.27	31.13

57. Westminster Bank Review, Nov. 1952.

58. Min. Agricultural Statistics, 1945 and 1953.

Rough Grazing	1939	5.57	10.46	0.53	15.54
	1944	5.54	10.76	0.70	17.03
	1950	5.47	10.92	0.71	17.10
	1951	5.44	10.91	0.70	17.07
...	
Total land area		37.34	19.46	3.35	60.15
Non-agricultural use	1939	7.16	4.44	0.34	11.93
	1951	7.43	4.16	0.35	11.91
Percent agricultural use					
	1951	80	77	90	80

Dr. John Russell has estimated that about 80 percent constitute the cultivated area in England. Despite the limited area that U. K. has brought under cultivation, the peasants of U. K. have tried to make the best possible use of the land.

In Europe, like Britain, the population rose greatly during the 19th century. The following table shows the growth of population in European countries since 1937:—⁵⁹

	1937	1950	Percentage increase in 13 years
North West Europe:—			
Belgium	8.35	8.64	3.5
Holland	8.60	10.11	17.5
Denmark	3.75	4.27	14.0
Norway	2.92	3.26	11.7
Sweden	6.28	7.02	11.7
France	41.20	41.93	1.8
U. K.	47.49	50.30	6.5
Central Europe:—			
Switzerland	4.18	4.69	12.0
Austria	6.75	6.91	2.4
Germany (Ex. U.S.S.R. (Zone))	57.57	69.00	20.0
Southern Europe:—			
Portugal	7.42	8.49	14.4
Spain	25.04	28.29	13.0
Italy	42.37	46.27	9.2
Greece	7.11	7.96	12.0
Eastern Europe:—			
Poland	...	25.0	0.20
Czechoslovakia	14.43	12.34	0.14
Bulgaria	...	...	...
Rumania	15.51	...	4.0
Yugoslavia	...	16.25	3.0
U.S.S.R.	...	...	...

⁵⁹ F. A. O. Stat. Year Book, 1951.

On the mainland of Europe, the coastal countries of English Channel and North sea the density of population is high, which signifies the all round industrial progress of Europe. Here are found great urban centres of France, Belgium and Germany; the valley of Rhine is also within these industrial Urban connections. The density of population in the coal fields of France and Germany is very high. According to Dr. Taylor, "The dense population in Europe is distributed along the coal belt from Swansea to Silesia. Here temperature is obviously not the main factor. Another obvious control (tending to prevent settlement) is elevation though here temperature is concerned as well as absence of good soils and difficulty of communications. Hence, we shall find that the temperature effect is least complicated by other factors in the lowland regions where no coal is present."⁶⁰ With regard to coal, it was only possible to see how this factor influenced the population of a country with an adjoining country.⁶¹

Country rich in coal		Small or no coal supply		Ratio
Bohemia	315	Hungary	160	1.9
Germany	324	France	191	1.7
Poland	793	West Russia	94	2.0
Britain	460	Ireland	140	3.2

Another population concentration is to be found East of Rhine valley along eastern Germany, and according to Taylor, "In Europe the largest areas of heavy population occur in the Rhine and Po valleys below 600 ft. and along the slopes of the Bohemian Highland, etc., at about 1500 ft. only. In Spain and Bulgaria are there many inhabitants above 3000 ft."⁶²

In the Mediterranean Europe there is no extensive belt of human concentration like central Europe. It is due to the fact that the Mediterranean Europe is mostly mountainous. In Mediterranean countries, a great variety of crops are grown such as vines, fruits, early vegetables, tobacco, maize etc. In the drier district of France, Olives are grown. Here the main basis of population are agriculture and dairying. In 1953 about 87.2 million acres were in agricultural use, of which 34 percent was under permanent grass. The following table shows the land utilization in France.⁶³

✓ 60. Dr. G. Taylor, *Environment Race and Migration*, 453.

✓ 61. *Op. Cit.* 449

62. *Op. Cit.* 443.

63. *Stat. Year Book*, 1951

Land Utilization in France 1938 and 1948
Million Acres

	1938	1948	1950
Cultivated Agricultural land	50.15	45.0	45.9
Vines	3.9	3.9	3.9
Pasture	28.85	30.4	30.4
Total Agricultural land	82.8	79.3	80.2
Forests	26.6	27.0	27.7
Moor and Uncultivated	14.0	14.9	14.0
Other use	12.9	14.8	14.2
Total Population (Millions)	136.1 41.9	136.1 41.8	136.1 42.4 (1951)

Here the urban and rural centres go side by side, as many smaller and higher industries have also sprung up. In Europe the density of population depends on commerce, industries, trade and communication and mineral exploitation, whereas in Asia the concentration of population is based on agriculture.

The United States proper, according to H. Graham, there is a land surface of 2,973,700 square miles. More than 53,000 square miles of water surface—lakes, ponds, reservoirs—bring the total area of the country to more than 3,000,000 square miles. Expressed in acreage it is 19,031,630,000 acres, and according to Vandersal in his recent compilation of major types of land use, the acreage in the United States is apportioned approximately as indicated in table below—

Major types of land use in the United States

Use	Acres	Percent
Farms	1,054,000,000	56
Forests		
National	155,000,000	20
Private (excluding Farm woodlots)	216,000,000	
State	7,000,000	
Public grazing land	182,000,000	10
India Land	55,000,000	3
Parks		
National	13,000,000	1
State	4,000,000	
Wildlife Refuges:		
National	14,000,000	3
State	50,000,000	

Highways and Roads	20,000,000	}	7
Rail road rights of way	4,000,000		
Cities and towns	10,000,000	}	
other	119,168,000		
TOTAL	1903,168,000		100

What of Canada? Canada holds out greater possibilities of additional food production for world supply. Canada's population capacity has been estimated by S. Leacock at least 250 millions of population.⁶⁴ Kimble estimates, that the resources of Canada could support a population of 100 millions. According to the Canadian Government Reports that the potential agricultural lands, (excluding pastures) of Canada could support a population of 361 millions. The area, under cultivation is only 60 millions acres. In eastern Canada 40% is occupied by cropped land, cereals nearly 50 percent, other fodder crops about 4 percent, leaving 6 percent for others. The areas of land utilized and population are given below.—⁶⁵

Land Utilization in Eastern-Canada (States in)
Million acres 1931

	Ontario	Quebec	New Brunswick	Nova Scotia	Prince Edward Island
Total land area ...	232.5	335.3	17.60	13.27	1.40
Total Farm Area ...	20.88	16.79	3.47	3.17	1.09
Improved land:	...	...	...	...	...
All crops ...	8.64	5.79	5.712	0.777	0.426
Pasture ...	3.23	2.69	0.24	0.155	0.198
Summer Fallow ...	0.33	0.047	0.007	0.002	0.002
Other use ...	0.48	0.31	0.044	0.027	0.020
Total unimproved ...	12.69	8.83	1.01	0.662	0.645
Percent of total					
Farmland ...	61	52	29	21	60
Unimproved Land ...					
Wood-land ...	3.85	5.87	2.04	1.84	0.346
Other ...	4.33	2.08	0.42	0.67	0.103
Total unimproved ...	8.19	7.96	2.46	2.51	0.449
(Populations) 1949 ...	...	3.89	0.516	0.645	0.093
Millions					

64. Leacock—*Economic Possibilities of the British Empire*, p. 30

65. Commonwealth—35th Report 1932

From the point of view of food production, Canada may be divided into five sections: (1) Eastern Canada and Maritime provinces, (2) The fruit regions of the Great Lakes region and Ontario peninsula, (3) The interior continental plain including prairies, (4) The valleys of British Columbia, and (5) the Northern regions with short warm summers and long cold winters. The densest population in Canada are distributed along the above mentioned food production belts. They are (1) Ontario peninsula and the St. Lawrence valley, (2) The Southern coastal area of Atlantic, (3) Agricultural Zone of prairies provinces, and (4) the Pacific coastal area of British Columbia and river valleys.

The cold sub-polar climate of North America with especial reference to Canada, its large marshy land and moor land are the main hindrances in the way of a dense human concentration. The following table shows the population growth in Canada and the gross value of total production agricultural, manufacturing, mineral and pulp and paper:—⁶⁶

	1921	1931	1941	1951
Population Total in Ca- nada	8,788,483	40,374,196	11,420,084	14,009,429
thousand \$	4,177,836	4,132,112	8,744,662	21,241,000
Agricultural thousand \$	1,386,126	836,441	1,432,601	6,076,308
Manufacturing thousand \$	2,488,987	2,555,126	6,076,308	13,817,520
Paper and Pulp (0000 \$)	116,891	62,767	163,412	...
Mineral thousand \$	171,923	930,435	560,241	1,228,005

Alaska has been filling up recently, and with population of about 60,000 according to Brooks it can support a population of 10 millions.

In North America about 85% of the people are living east of 100° Western longitude. The reason is that America was settled mostly by European immigrants and they could penetrate the continent from the east. Hence human settlements firstly took place in the eastern Atlantic sea board. As the human pressure went on increasing these eastern human concentrations not only became dense but also spread westward and northward. The Great Lakes were the most favourable site for trade and commerce through inland water transport. Many large towns have developed

along the coast of great lakes. In Eastern America the agricultural population is concentrated Southwards, where cotton and corn are grown on an extensive scale, requiring huge labour force. In north eastern United States the density of population reaches 200 persons per square mile whereas in the west it is only 12 persons per square mile. In the west the density of population is higher only in particular areas where the irrigational facilities and mineral resources are available for human attraction. The following table shows the growth of population since 1910.

Year	Total population in Millions
1910	92.0
1920	105.7
1930	122.8
1940	131.8
1950	157.1
1952	157.7

There are many considerable possibilities in tropical grass lands such as Pampas of south America. The Savannas of Africa or the animal raising territories of Australia have for greater crop-raising potentialities than the equatorial rainforest. There are vast crop-raising possibilities in Brazil. Friedrich Freise estimates, however, that the resources of Brazil could support a population of 400 millions, and according to James Bryce, "No country in the world possesses so large a proportion of land available for the support of human life and productive industry."⁶⁷ After some years later the writer forecast that "with the immense areas in central and southern Brazil adapted to cattle raising Brazil seems destined eventually to outstrip Argentina, the United States, and Australia, as the greatest purveyor of the worlds meat supplies."⁶⁸ The South America as a whole can support more than 2400 millions which about thirty times her present numbers. The present population in this continent, estimated at 82 millions, is found over a total area of a little more than 7 million square miles, roughly twice the area of the United States of America. What about the density of South American countries? The following table shows the population, area and density countrywise.⁶⁹

67. South America—*observations and Impressions*, p. 404.

68. *Encyclopaedia Britannica*, 14th Edition 1932.

69. *The Statesman's Year Book*, 1948.

Country	Year	Population in thousands	Area in thousands of sq. miles	Density per sq. mile
Brazil	1945	...	3,286.2	13
Mexico	1940	19,654	758.6	26
Argentina	1947	...	1,072.7	14
Columbia	1938	8,702	439.8	20
Peru	1940	7,023	483.2	14
Chile	1940	5,024	286.4	18
Venezuela	1941	3,951	352.2	11
Bolivia	1940	3,457	416.0	8
Ecuador	1940	2,949	104.5	28
Uruguay	1941	2,186	72.2	30
Honduras	1940	1,137	59.2	20
Paraguay	1941	1,040	150.5	7
Nicaragua	1940	899	57.7	16
Costa Rica	1940	656	19.2	34
Panama	1940	632	28.6	22
Trinidad Y Tobago	1941	506	2.0	256
British Guiana	1941	354	89.5	4
Dutch Guiana	1937	171	50.0	3
Bahamas	1941	71	4.4	16
British Honduras	1931	51	910	6
French Guiana	1936	31	34.7	1

In North East America the dense population is due to the fact that humid-cultivation was made possible by African slaves. The other centres of population in South America are found along the coastal areas where the oceanic transportational facilities and contact with other continents stimulated trade and industry. In the middle latitudes the density of population is due to the agricultural facilities such as are found in the plains of Argentina, Uruguay, Paraguay etc., on the contrary "For British Guiana with about 4 persons per square mile, its inhabitants concentrated on the low-lying coast lands and its interior largely devoid of people, remains very sparsely populated."⁷⁰

The Population distribution in Africa, is too marginal. Here density of population is found along the Mediterranean coast, Nile delta, in the Southern coast, on the Guiana coast and Southern Rhodesia. The European population of Southern Rhodesia in 1953 was 158 500. The 31.75 million acres has been allocated for Europeans. The 31.75 million acres of European area utilized as follows:—⁷¹

70. W. Roberts, *Some observations on the Population of British Guiana*, (Population studies, 1948.)

71. F. A. O. census, 1950.

Crops	737 thousand acres
Orchards	5.2
Forest, Natural	14,695
Forest, Planted	75
Pasture	10,221
Others	2,860

The population is rapidly increasing as mentioned below

	European	African
1909	64,000	1,374,000
1949	82,386	1,764,000
1951	136,000	2,010,000
1953	158,500	...

The total area of French Africa, estimated by M. Guillaume is about 1900 million acres and utilized as follows:—

Desert and other waste	500 Million acres.
Utilize for shifting cultivation	175
Additional for nomadic grazing	75
Not Utilized	1,150

Kenya is the most important colony from the point of view of British and European settlers. The following table shows the different ethnic groups:

European	1948	29.66 thousands
Indians and Goans	"	97.67 "
Arabs	"	24.17 "
African natives	"	5,218.0 "
Others	"	3.50 "
Total		<u>5,373.0</u>

The land was utilized as follows in 1950:—

		Million acres
Native areas		33.28
Alienated or available for Europeans		7.87
Grown Forests		3.03
Townships and reserves		0.18
Other Government Reserves		<u>0.18</u>
Utilized	44.54	
Northern areas	73.85	
Unclassified	22.16	
Total	<u>£ 140.56</u>	

Sahara is the largest desert area of the world. Here the population is found only on the oasis where water is available.

The continent of Australia has large uninhabited areas. In reality the population pattern in all the newly settled continents is every where same, because the coastal areas were the most suitable for the immigrants to settle. Later on with the increase in population, the inner areas were also gradually settled. Australia provides a good example of this fact. There are many crop-raising possibilities in Australia. "Australia is as large in areas as the United States of America, and this very size acts as a constant depressant of scientific investigation. Popular opinion will persist in the belief that large area means proportionately large resources. On the other hand, the continent is sparsely populated, and its people are, in general, so preoccupied with the tasks in hand that they have no time to be well-informed in regard to either the productive capacity of the unused resources of the continent on which they live..... There is a school which believes that, somehow or other, the continent will ultimately support 100,000,000 people. There is another which says that twice the present population will be the optimum density."⁷² Australia has "vast potentialities," and unexploited resources for future generations. The following table shows the land utilization in Australia by States in 1953.

	Tas- mania	Vic- toria	New South Wales	South Austra- lia	North- ern Territory	Queens- land	West- ern Austra- lia
Forest reserve	12.1	9.3	3.8	.1	...	2.3	1.0
Natural Pasture and Rough Grassing	31.7	43.0	79.2	60.1	51.4	82.4	32.8
Crop, orchard and sown pasture land	7.4	24.2	5.8	2.7	...	1.0	1.7
Not used for farming or forestry	48.8	23.5	11.2	37.1	48.6	14.3	64.5

The above figures show that relatively small proportion of the continent which has been brought into intensive use. The continent of Australia has an area of about 3,000,000 sq. miles and contains about 9,300,000 people is accepted by most critics

⁷² W. J. W. Wood, *Land Utilization in Australia*, preface of the 1st Edition p. VI.

CHAPTER VI

RACIAL SERVEY OF INDIA

THE Indian sub-continent being huge in Physical dimension exhibits a variety of human races. From the highest grade of civilization to the lowest are found side by side. The diverse anthropological character of the pre-historic races is still observed among some of the aboriginal tribes of India. The so called pure racial elements had become extinguished not only in India but in whole world, due to frequent interbreeding amongst different human species. Nevertheless, some of the uncivilized and ancient tribal people of the country have survived from interbreeding and hence they can be supposed to exhibit that original anthropological character of their predecessors. The Indian civilization, as it stands today, is the outcome of the mixture of the frequent immigrants from other parts of the world and its original residents. Under such circumstances it is incorrect to look for the original pure races that once dominated the country.

"The racial concept", according to T. H. Huxley, is almost devoid of biological meaning as applied to human aggregates". A race, broadly speaking, is an indicator of human groups having almost the same physical features, languages and culture and at the same time differing from other groups of human being in these respects. In other words a race embodies the broad biological features of different groups, and thus we have racial stocks such as Mongoloids, Negroids and the like, but the racial classifications so far adopted are not strictly bounded as the criteria of racial classification are flexible depending upon climatic changes, inter-breeding etc. and hence no particular demarcatory line exists to divide the human stocks into varying categories. Let us, however, traverse very rapidly the history of race classification of the Indian people using the authoritative study by Sir Herbert Risley. His divisions were;¹ 1. The Dravidian type in the larger section of the Peninsula which lies to the south of U. P., i. e. from Vindhyas to cape comorin in the extreme south and east of about longitude 76° East, the Dravidian racial element is found amongst Santhals, Nayars, Kols, Kharwars, Cheros etc. The majority of the representatives of the tribes have dark, or somewhat black skin, short stature; the eyes are dark, the hair on the head are plentiful, with an occasional tendency to

1. H. H. Risley, *People of India*, p. 33-33 Op. Cit.

Sir H. Risley explains this type as Turko-Iranian in the North, and as Scytho-Dravidian in the South, but there appears to be no justification, for his distinction since "there seems to be no change in type toward the south which is not explicable by assuming, and with every probability, a proto-australoid admixture increasing inversely to the degree of latit. de".

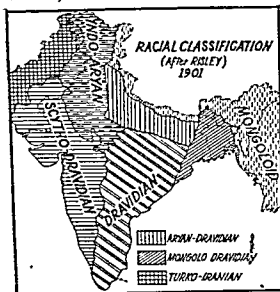


Fig. 19. - Racial classification of India book. "Man, Past and Present". Risley described, for example, the Kannets of Kulu and Lahoul as representing the Mongoloid features, which is incorrect. As the table for Punjab, given below, reveals the Kanets of Kulu greatly resemble the Khatries of Punjab, but those of Lahoul are quite distinct from the former. (The table is taken from *Castes and Races in India*, by G. S. Ghurye).

Name of the Castes (No. of individuals is given in paren- theses).		CEPHALIC INDEX		NASAL INDEX	
		Mean	Standard deviation	Mean	Standard deviation
Chuhra	80	73.59	2.69	75.29	6.0
Gijar	17	73.99	2.60	67.37	4.87
Kanet Kulu	60	74.11	2.57	74.00	5.98
Kannet Loulal	30	77.48	2.37	66.45	5.53
Machhi	19	72.50	2.82	70.29	5.22
Pathan	80	70.55	3.50	68.70	5.13
Sikh	80	72.76	2.92	69.10	6.06
Khatri	60	74.15	3.02	73.30	6.89

The Kulu Kannets represent the Indo-Aryan features. While those of Lahoul seem to be an admixture of the Kulu Kannets and the Mangoloids.

There does not seem any justification for Risley's classification of the Kashmiris as Indo-Aryans. According to Ghurye the Kashmiris appear to be a mesaticephalic people, perhaps a mixture of the Alpine folk of Central Asia and Indo-Aryans of the Punjab.

A. C. Haddon discarded the racial classification propounded by Risley and replaced it with his own classification. His classification enjoyed the recognition of the people, because of his being the foremost anthropologist to enumerate a scientific classification of the Indian Sub-Continent. Haddon established three groups subdivided into eight races. His classification is partly based on geographical location.

1. **The Himalayas.** (a) *Indo-Aryan* fair complexion, dark eyes, tall stature, narrow and prominent nose.

(b) *be Mongoloid*. Eyes often oblique, scanty hairs on face. The Mongoloid type found in Assam, Punjab, Kashmir, Nepal Bhutan etc., is more prominent.

2. **The Indo-Gangetic Plain.** Haddon traced the dolichocephalic element in the Indo-Gangetic people to the Turko-Iranian sources, but all Indo-Gangetic people are not dolichocephalic.

3. **The Deccan.** Haddon's divisions are based on distinction of colour, language and on cephalic index. The oldest existing stratum, according to him is represented by different pre-Dravidian jungle tribes. "The Dravidians may have been the original inhabitants of the valley of the Ganges in western Bengal.... after many wanderings, apparently across India, they settled mainly in Chhota Nagpur." Haddon considered the human races as varieties derived from an original Dravidian form and developed under the different environmental influences. According to him the following racial elements are found in the Deccan:

(a) *Negrito*. The Mincopi people of the Andaman and Nicobar islands, who are regarded by Haddon as "a somewhat generalized variety of Negrito-Papuan stock", were preserved upto recent times by their isolation in Islands about 200 miles from the mainland. The cephalic index of the Mincopi is 82.1; and skin colour is black. Hair is wavy, nose is broad, and lips somewhat thick.

(b) *Pre-Dravidians*. The skin colour varies from place to place; generally it is from brown to black.

(c) *The Dravidians*. Stature is short or below mean; skin colour is dark, ~~skin~~ confined to Malabar and Kerala.

(c) *West. or Brachycephals*. This type is represented by the Nagar Brahmins. They have small heads, the occiput tends to be flat, nose prominent and long. Dr. Haddon, who first postulated an immigration of the Alpine folks to account for the "Strongly marked Brachycephalic element in the population of western India".³

(c) *South Brachycephals*. The southern Brachycephalic type is represented by the Pariyans of Tamil district. The Brachycephalic element in Indian population is traced by Haddon by Alpine immigrants. Theory of an invasion of Alpines from the Pamirs as the explanation of West Indian brachycephaly may be unreservedly accepted. Indeed there is no other explanation which meets the facts. It is accepted by Haddon that "it is evident that there has been a mixture with a strong brachycephalic stock, which must have belonged to the Eurasiatic group since there is no trace whatever of Mongolian characters", though there is no evidence to suggest when this immigration took place."

Giuffrida Ruggeri distinguished four races in India's population. His ethnic classification is given below:—

1. *Negritos*. Ethnographically, the stature is mostly low, skin colour is dark, and frizzly hair. The Negrito type is found in the large section of the Peninsula; which lies to the south of the Satpura range, and east of about longitude 80° and is represented by the Kadars, Pulars, etc.

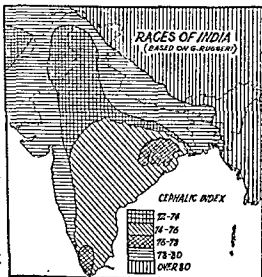


Fig. 20

2. *Pre-Dravidians*. This type is represented by the Santhals, Kharwars, Cheros, Mundas, Hos, etc.

3. *Dravidians*. The stature is short or below mean; skin colour is brown to dark brown, eyes dark, mostly inhabiting the large areas of the Peninsular India.

4. (a) *Tall Dolichocephalic Type*. This type is represented by the Todas and Kurumbas, has elongated head, dark skin colour and frizzly hair.

(b) *Dolichocephalic Aryans*. Under this class he includes Rajputs, Marathas, etc.. The following table gives the Dolichocephalic Aryans in the country⁶—

Types of Race	Cephalic index	Stature	Nasal index
General types			
1. Indo-Afghan	... 74	1645	69
2. Indo-Persian	... 81	1663	71
3. Mediterranean	... 78	1680	66
4. Armenian	... 87	1680	67
5. Georgian	... 83	1650	60
Local Types			
1. Rajput of Bihar	... 72	...	72
1. Sikh (Punjab).	... 73	1705	68
1. Balti (Near Western Tibet)	... 80	1617	68
2. Brahmin (Bengal)	... 80	...	...
2. Marathi (W. India)	... 80	1613	75
2. (Brahmin) (Bakuch)	... 82	1959	71
4. Galcha	... 86	1669	67

Von Eickstedt distinguished three fundamental groups, sub-divided into six races:

1. *Weddid*. The most primitive people of the jungles have medium to short stature, curly hair with dark brown hue. Eickstedt calls this type as Ancient Indians. The Weddid consists of.—

(a) *Gondid*. The stature is medium to short; the skin colour is dark brown which is represented by Gonds etc.

(b) *Melide*. A type represented by Kurumbas has short stature, curly hair with black brown hue.

6. G. Taylor, quoted in *Environment Race and Migration*, p. 216.

2. Melanids. The following racial elements are noticed :—

(a) *South Melanid*. Short stature, nose prominent and long, somewhat tawny brown in skin colour.

(g) *A*. Ethnographically, the stature is short, skin colour is dark to dark brown. It is represented by Santhals etc.

(3) *Indid*. The progressive New Indian or the Indid group is divided into two classes. The main racial elements, as observed by Von Eickstedt, in Indid or New Indian, are given below:—

(a) *Gracile Indid*. The type is represented by the Bengalis.

(b) *North Indid*. Coarse light browned north Indian types.

Dr. Hutton has suggested the following classifications of the ethnic elements in India.—

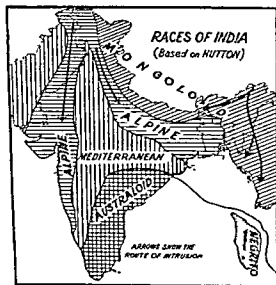


Fig. 21.

I. Negrito.

According to Hutton in any case the Negrito seems to have been the first inhabitant of South Eastern Asia. As already indicated traces of this stock are still to be seen in some of the forest tribes of the higher hills of the extreme south of India, and similar traces appear to exist in the inaccessible areas between Assam and Burma, where a dwarfish stature is

combined with frizzly hair such as appears to result from recent admixtures of the pure or virtually pure Negrito stock of the Andamans with blood from the mainland of India or Burma". This dolichocephalic type appears to have had its origin in the West.

II. Proto-Australoid. They came from the East Mediterranean area, and according to Hutton "The safest hypothesis at present therefore appears to be that the Proto Australoid type in India is derived from a very early migration from the West and that its special features have been finally determined and permanently characterized in India itself." The Vedians, Malavedans, Irulas, Snolagas are the true representatives of this group.

III. Early Mediterranean. They brought earlier forms of Austro-Asiatic languages. Dr. Hutton generalising the facts writes, "Northern India was occupied by Mediterraneans before the Aryanoid stock began to mingle with them, and it is possible that they were connected with the Indonesian race, now submerged, which seems to have left patches of specks of Austro-Asiatic languages along both sides of the Ganges valley in the course of its migrations".

IV. Civilized Mediterranean. They are known as Dravidians in India. They have been acquainted with the "Mathematical and astronomical knowledge of contemporary Babylonia". This type is responsible for the development of Indus valley civilisation.

V. Alpine. According to Hutton, "This race appears to have been at any rate partly responsible for the highly developed civilization of ancient Mesopotamia and Asia Minor and in both areas it has everywhere mingled with the Mediterranean race which it found in occupation". Banias and Brahmins are the true representatives of this type.

VI. Armenoid. It is the offsprings of Alpine race.

VII. Nordic. They are supposed to have brought the Sanskrit language in India.

VIII. Mongoloid. They entered into India from North East territory of India. And according to Hutton, "the race movement of Mongolians southwards still continued among the Kachin tribes, while the Kuki-chin tribes have barely settled down after reaching the Bay of Bengal and starting to work northwards again on the Assam side of the dividing ranges. The bulk of Burman in any case is primarily mongoloid, and any non-mongolian streams of migration that may have reached India through Burma have absorbed a vast quantity of Mongolian blood. In Assam even the Khasis of Synteng, though they have managed to retain their Austic language, differ little in physique from their Tibeto-Burman speaking neighbours. Elsewhere in India south of the Himalayas even Mongolian languages have not survived, and there is little trace of their influence except in the mongoloid caste of physical feature that crops up unexpectedly with fair frequency in northern India, particularly along the foot of the hills. Their

contribution to Indian culture west of Assam has probably been negligible".

Dr. B. S. Guha derived six principal groups and sub-divided them into thirteen races and the types of Mongoloid, Mediterranean, and Alpo-Denarie, have been described in particular detail:

1. *Negrito*. Kadars are the true representative of this type. Discussing the Kadars, Dr. Guha writes "Whatever might have been the original type there can be at any rate no doubt that this was Negrito....." The stature is short, frizzly hair and dark brown to black colour.

2. *The Proto-Australoid*. Skin colour is dark brown to black; stature is short; fleshy everted lips, and is represented by Mundas, Kols etc.

3. *Mongoloid*. Short to medium stature, epicanthic eye-fold, flat nose and face. According to Dr. B. S. Guha, the following racial elements are found in Mongoloid stock:—

(a) *Palae Mongoloid*. The physical features of this type are: colour dark to brown or nearly black, nose medium, eye-slits oblique and cheek bones are prominent.

(i) *Long headed type*. The Semi-Naga is the representative of this type.

(ii) *Broad headed type*. They are broad headed with dark skin, and the face is flat.

(a) *Tibeto-Mongoloid*. Physically, they are broad headed people with dark skin colour, obliquity of eye-slits and broad nose and mostly confined to Bhutan and Sikkim.

4. *The Mediterranean*. They have been sub-divided into:

(a) *Palae Mediterranean*. The presence of this type is very marked in Tamil and Telegu Brahmins of southern India.

(b) *Mediterranean*. This type appears to be predominant in Kashmir, U. P. and the Punjab, and is represented by Marhattas and Brahmins of U. P.

(c) *Oriental type*. The people of this type are found in Western Uttar Pradesh, the Punjab and Rajasthan.

5. *The Nordic*. Stature is tall; skin colour is fair long head, narrow nose and represented by Bengalis.

6. *Alpo-Denarie*. These may be divided into:

(a) *Alpine*. They are mostly confined to Saurashtra, Bengal, and Bombay and are represented by Kayasthas of Bengal, Banias of Gujarat and Kathis of Saurashtra.

(b) *Dinaric*. The people of this group are found in Kerala and Orissa and are often mixed with the Mediterraneans.

(c) *Armenoid*. Physically, they are tall in stature, skin colour is fair, long head, occiput protruding and narrow nose.

The Alpo-Dinarics according to Dr. Guha, are western Brachycephals. (see the Cephalic index map-taken from Dr. Guha's Census Report 1931 Vol. I part III.)

The origin of the Brachycephalic element in the Indian population is unknown; but it has been supposed by some to have been derived from an 'earlier' "immigration from the Iranian Plateau and the Pamirs, of a Brachycephalic race speaking perhaps an Indo-European language of the Picacha or Dardic family". Whatever may be the origin of

Brachycephalic (Short-headed) element in India, but the Iranian people are not brachycephalic. They are Dolichocephals (long headed) generally, so that the Brachycephal in Indian population is difficult to derive from the Iranian sources. Considering the different anthropological traits of Indian people, the Sub-continent can broadly be said to contain the following races at present. The classification mentioned below would likely prove to be the suitable anthropological classification of the Indian people.

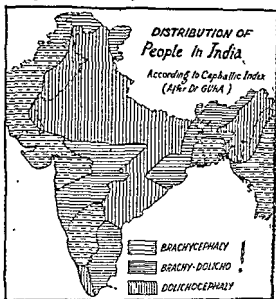


Fig. 22

THE DRAVIDIAN TYPE

The Dravidians were the original inhabitants of most of India before the beginning of Historic era. Their existence in India is so ancient that they are reckoned as the Aboriginal races

of India. Of all the non-Aryan races which inhabited India before the Aryan immigration, it has been assumed, with good reason, that the most civilised were the Dravidians, and we can gather from the study of primitive Dravidians sociology in aboriginal India tribes of the present day what part Dravidians institutions took in the formation of the Indo-Aryan village system. The indigenous Dravidian system was in all probability the foundation upon which the Indo Aryan economic superstructure was built. E. B. Havell goes on to say that "The Dravidian tribesmen were generally no bad hunters living in the forest, and their social system different from the Aryans in being Matriarchal instead of patriarchal."

But their racial elements underwent a tremendous change with the immigration of Aryan, Mongols, etc., due to inter-breeding. "The stature is short or below mean; the complexion very dark approaching black, eyes dark, head long, nose very broad, sometime depressed at root, but not so as to make the face appear flat." Their bodies are well proportioned but their features rather ugly. The Dravidians speak different languages such as Tamil, Telegu, Kanarese, etc. These are very diligent and hard working. Some people consider them as uncivilised or semi-civilised but really speaking they are much advanced in civilization amongst other aboriginal racial tribes of India. In fact the excavations in Harappa and Mohanjodaro have proved that they were much advanced in culture and civilization. "The Mohanjodaro civilisation must be 'Dravidian' in origin, and the racial type to which the Mohanjodaro people belonged was probably Mediterranean."⁸ The Dravidian racial elements are found amongst the Paniyans of Malabar, Todas of Nilgiri hills, Santhals and Juangs of Orissa, Gonds of Bistar in Madhya Pradesh, and the other tribes of Chhota Nagpur plateau. Dr. G. S. Ghurye (*The History of the Civilization*) breaks up this composite group into four distinct types -

I. *Pre-Dravidian*. The Physical features of this type are - The head is long the cephalic index being generally below 75, the nose broad; the nasal index being always above 80. The Bhil and the Kathari of Western India, Irula, the Kadar, the Kanikar and the Puniyan of southern India are the best representatives of this racial stock.

II. *The Munda type*. It forms today a dominant element in the population of Chhota Nagpur plateau, Bihar and western Bengal. In this region Munda culture had a far wider distribution in the Historic past is found as Grierson pointed out that the

8. E. B. Havell, *Aryan Rule in India*, p. 5.

9. E. J. Rapson, *The Cambridge History of India*, Vol. I, p. 36.

10. D. N. Majumdar, *Races and Cultures of India*, p. 27.

"Munda language must once have been spoken over a wider area in central India, and probably also in the Ganges valley"¹¹

III. **The Dravida Type.** The best representatives of this type are the Nayar, the Badas, the Agamudaiyan and the Vellala. This type is characterized by a long head, the cephalic index being less than 77.

IV. **The Western type.** This group possesses nearly brown skin colour; the head is mostly medium with a slight tendency towards broad. The nasal index in most communities is below 78.

The best representatives of this group are Coorgi, Nagar, Mala, Sale, Bant and Vakkaliga etc., and are mostly confined to western coast of Gujarat, to South Canara as well as far south Coorg.

THE INDO-ARYAN

"The Aryan people who gradually imposed their civilization upon the whole of India, were closely related to that masterful race which in the first or second millennium before Christ began to dominate the shores and islands of the Mediterranean and the Euxine, whose intellectual power gained a supremacy in Europe not less than that won by their fellow Aryans in India."

Continues Havell, "The first Aryan invaders of India were pastoral and agricultural rather than sea faring folk, and their entry into India was chiefly through the North Western gateways of the Himalayan mountain wall. There is indeed, every possibility that some of the early Indo-Aryan settlement in the Punjab came by sea, through the Persian Gulf and up the Indus the route by which part of Alexander's expedition returned to Babylon; for it is now known that Babylon was ruled by an Aryan dynasty for about six hundred years, and there is no doubt that the great cities of Mesopotamia were always in close commercial intercourse with India"¹²

Modern archaeological research has thrown much light upon the history of the Aryan tribes in Central Asia. "The Aryan speaking people first migrated into India early in the second millennium B. C."¹³ They fought the Dravidians and drove them away to southern India, and settled themselves in Indus, the Punjab, Kashmir, U.P., and other suitable parts of northern India. The Aryan came here with their families and so interbreeding could not take place to such an extent to make them totally new. Some hybridization undoubtedly occurred due to the frequent sexual intercourse with the females of the other tribes. "Ethnographic investigations show that the Indo Aryan type described

11. G. A. Grierson, *Linguistic Survey of India*, Vol. IV, p. 9.

12. E. B. Havell, *Aryan Rule in India*, p. 4.

13. A. C. Haddon, *The Wanderings of Peoples*, Op. Cit.

in the Hindu Epics, a tall, fair complexioned, long headed race, with narrow prominent noses, broad shoulders, long arms, slim waists like a lion, and thin legs like a deer is now (as it was in the earliest times) mostly confined to Kashmir, the Punjab and Rajputana and represented by Khatrias, Jats and Rajputs."¹⁴

The four sects or Varnas of the Hindus, i. e., Brahmins, Kshatriyas, Vaisyas, and Sudras are supposed to be the offsprings of the Aryans. Some historians now hold that the Aryans did not come here; but they are supposed to be the original residents of India. The reference to their culture and civilization is also found in vedas and other Hindu religious scriptures; the Indo-Aryan civilization is one of the oldest in the world.

THE MONGOLOIDS

On account of the geographical distribution of the Mongoloid race it is sometimes called "Asia-America race".¹⁵ The Mongoloid type prevails in Assam, and the sub-Himalayan tract which includes Bhutan, Nepal and the fringe of Uttar Pradesh, the Punjab, and Kashmir. "The head is broad; complexion dark; with a yellowish tinge; hair on the face scanty; stature short or below average; nose fine to broad; face characteristically flat; eyelids often oblique."¹⁶ The majority of tribes are of Dolichocephals, but amongst some along the Tibetan frontiers the head and the face are round. This element might have come from the northern regions where this Mongoloid element is very dominant, such as China, Mongolia etc.

THE ARYO-DRAVIDIAN

Some writers say that the Aryans came into India at an early period. Before the wide Aryan immigration in India took place there existed a race called the Dravidians. The Aryans happened to be superior in civilization to the Dravidians, and consequently they drove them away to the south and relatively inaccessible hilly regions of northern India. These races were once again defeated by the Aryans, and wide hybridization took place, resulting into a somewhat hybridised and Mongrelised breed—The Aryo-Dravidians. Their physical features are as follows :

"The head form is long, with a tendency to medium, the complexion varies from light brown to black, the nose ranges from medium to broad, being always broader than amongst the Indo-Aryans; the stature is lower than the latter group, and usually below the average (i. e. it ranges from 5' 3" to 5')."¹⁷

14. E. B. Havell *Aryan Rule in India*, p. 52

15. Meatzurkh, *The Origin of Man*, p. 517

16. Quoted by Rapson in *Cambridge History of India*, Vol. I, p. 421

17. *Op. Cit.*, p. 40.

MONGOLO-DRAVIDIANS

This sub-race has had its origin due to the wide range of hybridization between the Mongoloid (who made their way into India and defeated the primitive inhabitants of India) and the Dravidians, who are supposed to be the original residents of India. The hybridization resulted into a new race, inheriting the physical feature, partly of Mongoloids and partly of the Dravidians. Amongst the racial features of the Mongolo-Dravidian race are "The head is broad, complexion dark, hair on the face usually plentiful, stature medium, nose medium, with a tendency to broad".¹⁸

THE SCYTHO-DRAVIDIANS

Some writers say that the Sakas belong to the Scythian race. The Sakas, originally resided "beyond the Oxus river", but later on they had to migrate southwards from Central Asia, intermingled with the Dravidians, and became the ancestors of the Maratha race. Risley had put forward the following arguments in favour of his theory. "In the time of the Achaemenian kings of Persia", according to him, the Scythians, who were known to the Chinese as Sse, occupied the regions lying between the lower course of the Ganges or Jaxartes and Lake Balkash. The fragments of early Scythian history which may be collected from classical writers are supplemented by the Chinese annals, which tell us how the Ssa, originally located in south China, occupied Sogdiana and Trans-Oxiana at the time of the establishment of the Graeco-Bactrian monarchy. Dislodged from these regions by the Yue-Chi, who had themselves been put to flight by the Huns, the Sse invaded Bactriana, an enterprise in which they were frequently allied with the Parthians. To this circumstance, Ujfalvy says may be due to the resemblance which exists between the Scythian coins of India and those of the Parthian kings. At the later period, the Yue-Chi made a further advance, and drove the Sse or Sakas out of Bactriana, whereupon the latter crossed the Paropamisus and took possession of the country called after them Salastan comprising Segistan, Arachosia, and Drangiana. But they were left in possession only for a hundred years. For about 25 B. C. the Yue-Chi disturbed them afresh. A body of Scythians then immigrated eastwards, and founded a kingdom in the western portion of the Punjab."¹⁹ There is only one route by which we can imagine the Saka tribes could have immigrated into India; they must have come from Oxus into India by the Hindukush through the Kabul valley and across the

18. *Op. Cit.*, p. 42.

19. Risley, *Census of India* 1901, Vol. I Pt. I, p. 512-513 or *People of India*, p. 56-57.

'Indus and "originally settled in those tracts where we find them at a later period after their having once occupied an extensive territory."²⁰ They settled in Indus, Gujrat, and the western section of the Peninsula. Ethnographically, "the type is clearly distinguished from the Turko-Iranian by a lower stature, a greater length of head, a higher nasal index, a shorter nose and a lower orbito nasal index."²¹

The Caucasoid racial element in India is represented by the Parsees of Bombay. The skin colour being white; chest is rather narrow and solid breasts; well developed buttocks of females, slim waist with well-built and proportional physical features. It is strange to note that unlike others, the Caucasoid element did not undergo any kind of hybridization, although the climatic factors have tended and are still helping in reducing the original Caucasoid features of Parsees.

THE NEGRITO IN INDIA

Regarding the racial status of the Negrito, conflicting views are held by anthropologists. It is generally conjectured that during the Pre historic period, some barbarian, uncivilised, tribes inhabited the country. The main tribes of that period are Veddas, Kadars, etc. Haddon calls this type as Pre Dravidians "It is the Pre-Dravidians aborigines, and not the later more cultured Dravidians who must be regarded as the primitive existing race.....These Pre Dravidians..... are differentiated from the Dravidian classes by their short stature, and broad (Platy-rhine) noses." There is strong ground for the belief that the Pre Dravidians are ethnically related to the Veddas of Ceylon, the Toalas of Celebes, the Batin of Sumatra, and possibly the Australians." They generally remain rude and solely depend for their livelihood upon the flesh of wild animals and the roots, fruits and other edible forest products. They lead a migratory life, wandering from one part of the country to the other in pursuit of wild game and other life sustaining things. A. G. Haddon has referred to an early dark negroid race in Suciama, and its drift to India is not impossible. Negrito features are met with particularly amongst the Andaman Islanders, and most probably the Uralis of Nilgiri hills, Kadars of Cochin, Pullayans of Palni hills, etc.

The anthropological traits of these Negritos are that of Negroid, with a flat nose, medium head, somewhat flattened occiput, forehead protruded. Skin colour is generally dark. The

20. *Larrea's History*, Vol. 10.

21. Quoted by Rapson in *Cambridge History*, Vol. I, p. 39.

hair colour is black, eyes brown and somewhat fleshy everted lips.

According to Dr. Hutton, "The earliest occupants of India were probably of the Negrito race, but they have left little trace on the mainland of the Peninsula. The Proto Australoids who followed them and whose origin must be sought in Palestine, where upto the present the earliest ancestors of their race have been found, may claim to be the true aborigines on the ground that their racial type was ultimately fixed in India. They were followed by an early branch probably of the Mediterranean race. Speaking an agglutinative tongue from which the present Austro-Asiatic languages are derived, which migrated down the Ganges valley mingled no doubt with the Proto-Australoids in the Van at any rate penetrating to the farthest South-East of the Asiatic continent."

MEDITERRANEAN RACIAL ELEMENTS IN INDIA

It appears that the racial composition of India and also her culture, have been greatly affected and modified by the Mediterranean racial stock. Its centre of dispersion appears more likely to be the eastern Mediterranean. There are facts which support that the Mediterranean racial stock would have reached India much earlier as appears from the Crania found at Nal in Baluchistan, at Sialkot. These facts of theirs link the northern Indians to the dolichocephalic skulls. On the evidence of Indian skulls Sewell and Guha conclude that "It would seem probable that the Mediterranean stock had become established in northern India at a period that clearly antedates the civilisation at Nal and along the Indus valley, and the differences that have been shown to exist between the human remains at Anan, Kish and Nal indicate that a sufficient length of time had elapsed for certain local variations to have become involved and established."

It should, therefore, be concluded that northern India was dominant with the Mediterranean stock before the Armenoid stock, they began to mingle with each other, and it is "possible that they were connected with the Indonesian race, now submerged, which seems to have left patches of speakers of Astro-Asiatic languages along both sides of the Ganges valley in the course of its migration." The migration later on was characterised by the immigration of the more civilised and cultured Mediterraneans from the Persian Gulf, but the chief Mediterranean racial immigration came ultimately from eastern Europe. These Mediterranean immigrants were responsible for the innovation of the metals for the domestic uses but this was not associated with bringing in of the iron. It were the later successive waves of immigrants that brought with them the knowledge of iron and it

had also a comparatively more advanced culture and civilisation. This later wave of immigrants of the Mediterranean stock also maintained cultural relations with the then highly advanced cultural centres such as with the metropolitans of Mesopotamia. The pre-historic cultural developments of the Indus valley had been the outcome of this immigrating Mediterranean racial stock. The foundation stone of the Ganges valley civilisation was, in its perspective, laid by this racial stock. Anthropologically, all these immigrants belonged to the dolichocephalic type, "but mixed with this last race, possibility even with the first comers, but in any case as later settlers, was a brachycephalic element coming ultimately from the Anatolian plateau in the form of Armenoid branch of Alpine race." The Indian civilisation developing as a consequence of these racial immigrations reached its peak during the fourth millennium B. C. with a high standard of comfort, well developed art and sanitation in the cities. The racial immigrations also had religious repercussions in India. The religion

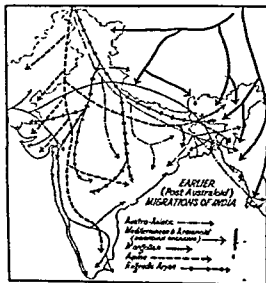


Fig. 23.

prevailing at that ancient time resembled in many ways the earlier religion of the eastern Mediterranean. In other words the Indian religion at that time became an adhoc of those prevalent in elder Mediterranean Society. The language generally used has possibly been Dravidian having a "pictographic script

resembling that of the prehistoric Mesopotamia." This civilisation became flooded in the west during the third millennium B. C., having its source in the Iranian plateau and the Pamirs. The main branch of this migration followed the west of India and across the Mysore Plateau to the south but not influencing the Malabar coast, which as a consequence could preserve much of the ancient civilisation of Dravidian speaking India. The other branch of these immigrants settled in the Gangetic plain but as a consequence of their small numbers they could not obliterate the then existing Armenoid Mediterranean civilisation though it had its influence in modifying an existing civilisation to a great extent.

During that very period, other racial movements were also spreading considerably in the extreme northern portion of India. The southward penetration of the southern Mongoloids was predominant, finding its way southwards towards the Bay of Bengal into Indonesia. Another important racial wave, that of Indo-Aryans, came into India in about 1500 B. C. It had its centre in the plains of the Punjab: occupying the area between the Indus and Jamuna, and later sent colonies across the Jamuna into Hindustan. This racial penetration imposed itself upon the then existing Indian civilisation. This hybridisation of sex and culture produced a refined population and a highly developed culture and civilisation.

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CHAPTER VII

SOCIAL ORGANIZATION

The *Adivasis* of India are as old as the hills, they are very simple, living in the midst of the vast wild and magnificent forests. Where the *Adivasis* reside, the regions are still inaccessible and totally isolated from the civilised human society. Undoubtedly, they are nurtured by the hardy mother nature, making them strong and stout, but side by side they have to suffer a lot of trouble and material loss. The isolation and their acute dependence upon their physical environment have shaped and moulded them into orthodox fatalistic practices and staunch believers in some unknown mysterious divine power, which alone guards them and leads to wherever it chooses. A slight glimpse of that divine power becomes reflected in the social customs of nearly all aboriginal tribes. The *Adivasis* of India are the most backward, even at present their existence depends to a large extent upon hunting of wild beasts, and the gathering of wild fruits and berries. Dr. Hutton distinguished these tribes into three occupational groups:—

Where found	Hunting and Collectional stage	Shifting cultivation, lumbering, manufacturing	Settled agriculturists who keep poultry, cattle know weaving and spinning, pottery and terrace farming.
U. P.	Rajp	Korwa, Saheria, Bhuiya	Tharu, Bind, Bokhas
Bihar	Kharia, Birhor	Korwa, Asur	Kols, + hasias
Bengal	Kuki	Garos	Munda, Ho, Oraon.
Assam	Kuki, Konyak, Nagas	Nagas, Lakhar,	Polia, Santhals
Madhy Pradesh	Hill Maria	Garos	Khasi, Manipur
Madras & Andhra	Koya, Reddi, Yan, Kadar, Hill Pantaram	Muria, Dandami, Gonds	Parja, Bhatua
		Khonds, Kurumba.	Badga, Kota, Irula, Parja
		Gonds, Saora, Mudavan	
Orissa	Juang	Saora	
Mal & Raj			Bhil, Gonds

The various authorities have described the *Adivasis* by giving different names. They have been described by Risley as "Aboriginals."² Dr. Hutton calls them "Primitive Tribes".³ Sri Baines refers them "Hill Tribes."⁴ According to Shooberth they are the "Aborigines."⁵, still dwelling in primitive stage of civilization.

The following table, indicating the trend of tribal demography in India, has been taken from the Census of India reports.⁶

Name of Tribe	1921	1931	1941†	1951‡
Chenchu	12,402	10,342	12,898	...
Kota	1,204	1,121	952	...
Toda	640	597	630	879
Nayadi	301	296	250	...
Mavillar	1,737	1,341	...	...
Gadaba	53,770	48,154	74,813	54,454
Malpaharis	389,72	374,39	40,498	374
Bokshas	7,623	7,618	274	...
Bodaga	45,821	43,075	56,047	67,286
Naga Tribes	147,262	137,965	280,370	...
Angami Naga	...	49,239	50,080	28,678
Lhota Naga	51,730	18,238	19,374	22,402
Andmanés	789	460	...	27
Mizo	...	...	...	200,000
Malapandarams	187	...	...	...
Abors	...	...	...	200,000*

The following table gives the percentage of the tribal population in different parts of the country⁷:—

2. Risley, *The People of India*, p. 78, or *Census of India 1901*, 310.
3. Hutton, *Census of India*, 1931, Vol. I, Part I, p. 591.
4. Baine, *Ethnography*, p. 115.
5. Shooberth, *Census of India*, 1931, p. 312.
6. Hutton, *Census of India*, Vol. I, Part I, p. 591.
- † *The First Five Year Plan*, 1952.
- ‡ *The Adivasis*.
- * *The Census of India 1941*.
7. *The First Five Year Plan*, 1952, p. 316.

State	Old State	% of the tribal population to the total population
Assam	Assam	33.9
Bihar	Bihar	14.1
Maharashtra	Bombay	9.2
Madhya Pradesh	Madhya Pradesh	22.6
	Madhya Bharat	15.4
	Bhopal	9.0
	Vindhya Pradesh	5.9
Madras	Madras	1.1
Orissa	Orissa	25.4
Punjab	Punjab	Nil
Uttar Pradesh	U. P.	0.5
West Bengal	West Bengal	6.5
Andhra Pradesh	Hyderabad	4.1
Jammu & Kashmir	Jammu & Kashmir	0.7
Mysore	Mysore	0.1
Rajasthan	Rajasthan	11.7
	Ajmer	15.6
Gujarat	Saurashtra	0.6
	Kutch	0.3
Kerala	Travancore Cochin	1.3
	Coorg	11.6
Himachal Pradesh	Himachal Pradesh	Nil
Manipur	Manipur	29.3
Tripura	Tripura	6.4

Geographically the aborigines of India can be divided into the following groups:—

(I) South Indian Tribes, (II) North Indian Tribes.

The South Indian Tribes may be divided into two groups according to their distribution: The tribes of South and South West India.

throughout the night to scare away the wild animals. The most characteristic feature of the life of the Malapandaram is that they do not know how to cultivate the land and do not grow anything for subsistence. The Malapandarams depend entirely upon wild edible tubers and roots gathered from the jungle. They are habitually itinerant people and throughout the year they move from place to place in every season in quest of forest produce. The migration to a new place is always preceded by a thorough enquiry by the leader of the group. Thus, even though the families in a group move separately for the collection of forest produce, according to Ehabananda Mukherjee "Hunting is not practised even as a subsidiary vocation by the Malapandarams as they do not possess any weapons worth the name. They hunt in a most archaic fashion by sending tame dogs after small animals like rabbits, black monkeys, squirrels etc." The fact that the Malapandarams do not cultivate the land nor lead a settled life like the other hill tribes of Travancore, is probably due to their love of forests and to the freedom of movement they enjoy.

The Paniyans and the Kurumbans are two jungle tribes of the Malabar. The Paniyans have dark brown skin and possess long wavy to frizzly hair. Their stature is short, the average height of the male being 155.5 centimetres. The nose is short, and broad, the maximum breadth being nearly 85 per cent of the nasal height. The head is narrow compared to its length, the breadth being on the average nearly 73 percent of the length.¹ The Paniyan men are good hunters and expert in the use of bow and arrow. They catch fish by crude appliances and sometimes by poisoning the water with poisonous herbs. Both men and women work in the fields. The soil and climate are suitable for the cultivation of paddy in wet lands, ragi, tapioca, coffee, tea and pepper.

In Malabar, there are actually three tribes all of whom are called Kurumbans. They are the Bet-Kurumbans, the Jen-Kurumbans and the Mulla-Kurumbans. The primary occupation of the Bet-Kurumbans is agriculture, that of the Jen-Kurumbans collection of honey which is their chief article of food and that of the Mulla-Kurumbans hunting with bow and arrow. Some Kurumbans profess to worship Siva. According to J. W. Brecks, "They worship also a rough, round stone under the name of Hiriadeva, setting it up either in a cave or in a circle of stones... ..; to this they make Puja, and offer cooked rice at the sowing time. They also profess to sacrifice to Hiriadeva goat, which they kill at their own houses, after sprinkling water, and eat, giving a portion of the flesh to the *piratt*..... They do

¹ Edgar Thurston, *Anthropology Bulletin*, Madras Government Museum, Vol. II, No. 1, p. 18.

not consider the stone as a Lingam, although they profess to be Saivites."⁹ They have a dark brown skin. Their average male stature is 158 centimetres. The nose is short and broad. They possess long, straight to wavy, dark hair.

The Reddis inhabiting the mountain tracts between the Godavari and the Penganga in North Western Andhra Pradesh have developed a type of social organization with many unique features. According to G. Von Furer Haimendorf, "In physical type the Reddis are decidedly more primitive than the Koyas and it appears that the basic racial element is of Veddid affinities. The dark skinned and curly haired type dominant amongst the Chenchus, in which there is probably a Malid strain, is also represented, but besides these primitive tribes there are numerous individuals with more progressive features and it seems indeed that the Reddis are by no means a racially homogeneous population."¹⁰

There are various occupations followed by the food-gathering tribes, such as, gathering of honey, collection of fruits, berries and tubers. In this group the principal aboriginal tribes are the following: The Muthuvan and Kanikkars of Kerala, the Chenchus of the Nallaimallais, Kadar, Malasar, Irula etc. of Wynaad, and stretching almost to Cape Comorin along the ranges of Cochin and Travancore etc. The Dravidian peculiarities being more strongly developed in them. According to Ruggles Gates, "The Kanikkars, Uralis and Kunibas, have also certain Australoid characters in different degrees. They also show some evidence of Negrito ancestry in the short stature and somewhat kinky hair." Whatever may be the ethnic affiliations of these tribes, they seemed to be a progressive tribe. In respect of agriculture they were in no way inferior to the local civilized Indians.

In Kerala, the Southernmost State in our country, are the homesteads of a wild hill tribe the Kanikkars. The staple cereal food of the Kanikkars is rice and coconuts. "When intending to clear some land, the headman is invited; three 'edungaly' (measures) of rice and six coconuts are presented to him. These he takes to a suitable plot of forest land, make an offering, and first clears a small portion with his own hand, then the others follow. These offerings are repeated on the burning of the felled timber, and the sowing of the seed, plantain fruits and other articles being added. On the first appearance of the ear, they spend two nights in drumming, singing, and repeating 'mantrams' in the field, putting up a 'tattu' or platform, on four sticks as a shrine for the spirits where they offer raw rice, tender coconuts,

9. J. W. Brooks, *An Account of the Primitive Tribes and Minorities of the Nilgiris*, p. 11.

10. Haimendorf, *Tribal Hyderabad—Four Reports*, p. 11.

flowers etc."¹¹ When they cannot get grain, they feed on wild fruits and roots, on animals that have died a natural death, and most probably in remote and inaccessible places on the flesh of elephants and boars, etc.

The food gathering economy of Southern Indian gave place to the agriculture. Leaving aside the tribes living in Nilgiris, the other tribal people sustain on fruits, berries, tuber and wild roots etc. The principal aborigines of the Nilgiri hills are: Todas, Badagas, Kotas, Kurumbas and Irulas. The Todas are a purely pastoral people. They have large herds of buffaloes and depend for their support on their produce, with the addition of the 'Gudu' (annual gift of grain), which they levy in kind from Badagas and Kotas. The Todas live in villages called mands. "Each 'mand' or hamlet, usually comprises about five buildings or huts, three of which are used as dwellings, one as a dairy, and the other for sheltering the calves at night..... The inhabitants of a mand or mund are generally related to one another and consider themselves one family. The family will possess one or two, sometimes three mands in different parts of the hills, to which they resort periodically for grazing their buffaloes. Each mand has its acknowledged pasture ground, which is not encroached upon by other. Each householder in the mand has his own cattle, which he can dispose of absolutely, and their milk is kept for his use, but the whole mand herd graze together tended generally but the village pujari (priest), who milks them morning and evening in monsoon months, and morning only at other times. The milk of all is kept in one dairy-house, which none may enter but the pujari....."¹² A. Aiyappan states that Todas are so advanced economically that they are no longer regarded as a tribe. Socially, "the Todas of the Nilgiri hills in Southern India are divided into two groups, the Tartharol and the Teivaliol, between which legal matrimony is prohibited. But each sub-divided into groups which are exogamous. A person of the Pansection of the Tartharol may not choose for his spouse a girl of Teivaliol affiliation, but must seek a Tartharol of some section other than his own."¹³ The Todas have a complexion varying from dark brown to nearly black, long and black hair on the head, the stature is generally short. The Todas are a patriarchal of Nilgiris. Ethnologically, the primogeniture is termed as junior right, especially used in England, i. e. the right of the eldest son to inherit his father's property. According to Lowie, "India forms one centre for this usage with the Badaga, neighbours of Toda, the sons of the family leave the parental roof on marriage, and set up households of

11. Samuel Mateer, *The Land of Charity* p. 62.

12. J. W. Brooks, *An Account of the Primitive Tribes and Movements of the Nilgiri*, p. 8.

13. Robert H. Lowie, *Primitive Society*, p. 16.

own, only the youngest remains with his parents, supports them in their old age, and automatically acquires possession of their home when they die. To a lesser extent junior right occurs amongst the Todas themselves. The father's buffaloes often remain the joint property of all the sons, but if the need for partition arises there is an equal division except that one additional animal falls to the share of the eldest and one to that of the youngest son. If there are only two sons, each would take half of the herd. With four sons and 16 buffaloes the eldest and the youngest take four each, the second and third brothers take three apiece, and the remaining animals are either sold, the purchase money being equally divided, or taken by one of the brothers who indemnifies the others, divided three quarters of the value of the buffalo among them."¹⁴

Polyandry, as practised by the Todas, consists in all the brothers of a family living promiscuously with one or more women. "Thus, supposing the eldest brother is to marry, his youngest brother, as they reach the age of puberty, will consort with their elder brother's wife, or if, for instance, the wife of the elder brother has sisters, they become the wives of the brothers when of a suitable age. Now, in former times, this tribe indulged much in female infanticide; hence a scarcity of women, and hence the common result of a single woman living promiscuously with, or being the sole wife of, five or six brothers....."¹⁵

The Badagas of Nilgiris are not a nomadic people, but possess large huts, thatched with very large leaves indigenous to their hills, and sides covered with logs of bamboo and *Mahua* (*Bassialohifolia*). The Badagas are mainly an agricultural people. The Kotas inhabit the Nilgiris and the mountain range which extends thence South-West into Kerala. The entire population may conveniently be classed as agriculturists. Both men and women participate in agricultural operations. Although they have had a great deal of contact with outsiders, against whom they have often rebelled, they have retained to an unusual degree their social cohesion, their art and many of their customs. The Kotas have little idea of mechanical arts; they work in gold and silver, are carpenters and black-smiths, potters and rope-makers.

Concerning the system of polyandry among the Kotas, that a woman may be married to more than one man, provided they are brothers, and the maximum number of husbands seems to be two or three. A brother's widow, if she is willing, is taken over by the younger or elder brother, and plurality of wives is not uncommon. According to J. W. Brecks, "During the woman's

14. *Op. Cit.* pp. 219-220.

15. R. H. Elliot, *Experiences of a Planter in the Jungles of Mysore*, Vol. II, p. 312.

pregnancy the husband leaves his hair and nails uncut. Three houses are built for women to occupy after the birth of children, or at other times when they are considered unclean. Immediately after birth the mother and child are removed to the first hut, a temporary erection of boughs called "Vollugudu" from "Vollu" inside, and "gudu" next, where they remain for thirty days. The second and third months are spent in two permanent huts called Telulu. A woman with her first child, on leaving the Vollugudu for the first 'Telulu' must make seven steps backwards among seven kinds of thorns strewed on the ground."

The other important tribes belonging to this group are Kadars and Malaialis. The Kadars inhabit the Anaimalai Hills and mountain range which extends thence Southward into Cochin. Physically they are of short to medium stature, of dark brown to black skin colour, and with broad flat nose and thick lips. The Kadars possess long wavy to frizzly hair. In physical features, according to Dr. B. S. Guha, the Kadars show some resemblance to the Negritos and the Australoids. The Malaialis are a less known tribe of Shevaroy hills and unlike the other aboriginal tribes, they still adhere to the nomadic life of their forefathers. The only means of making out livelihood for the people is agriculture. A large percentage of labourers in the coffee gardens of Madras and Kerala are men and women belonging to the Malaiali tribes. In the Kollimallais a curious custom prevailing among the Malaialis is that: "The sons, when mere children, are married to mature females, and the father-in-law of the bride assumes the performance of the procreative function, thus assuring for himself and his sons a descendant to take them out of 'Put'. When the putative father comes of age, and in their turn his wife's male off-spring are married, he performs for them the same office which his father did for him. Thus, not only is the religious idea involved in the words 'Putra' and 'Kumaran' carried out, but also the premature strain on the generative faculties, which this tradition entails, is avoided"*. Among the Dravidian tribes of Southern India the mean stature ranges from 170 in the Shanans of Tinnevely to 153 in the Pulaiyan of Travancore; and individual measurements vary from 182.8 in the former group to 143.4 in the latter. H. H. Risley has drawn attention to the well marked correlation between stature and the proportions of the nose which is brought out by the following table:—

	Mean Stature	Mean Nasal Index
Agamudaiyan	165.8	74.2
Badaga	164.1	75.6
Tiyan	163.7	75

16. Thurston, *Madras Government Museum Bulletin*, Vol. II, No. 3 p.

	Mean Stature	Mean Nasal Index
Palli	162.5	77.3
Tamil Parayan	162.1	80
Irula	159.9	80.4
Kadir or Kadar	157.7	89.8
Paniyan	157	95.1

According to Risley in Chhota Nagpur and Western Bengal the stature is more uniform, varying from 162.7 in the Oraon to 157.7 in the Mal Paharia and male of Santhal Parganas, and the correlation with the proportions of the nose, though traceable, is less distinct. The following table, indicating the Anthropometric data, has been taken from Risley's series:—

Tribe or Caste	Dimensions of Head		Proportions of Head	Dimensions of Nose		Proportions of Nose	Stature
	Glabella-loc-cipital	Breadth	Cephalic Index	Height	Breadth	Nasal index	
Badaga	189	136	71.7	46	34	75.6	164.1
Nayar	192	141	73.2	47	36	76.7	165.1
Malaiali	183	137	74.4	46	35	77.8	163.9
Pulaiyan	183	139	76.3	44	35	79.3	153.0
Irula	184	135	73.1	45	36	80.9	159.9
Irula (Coimbatore)	180	137	75.8	44	37	84.9	159.9
Kanikar	185	136	73.4	44	37	84.6	155.2
Kadia	184	134	72.9	43	39	89.8	157.7
Paniyan	183	136	74.0	43	38	95.1	157.4
Kota	192	142	74.1	45	35	77.2	161.9
Cheruman	184	135	73.4	45	35	77.2	156.6
Bhil	181.3	138.7	76.5	44.8	37.7	84.1	162.9
Birhor	185.5	142.0	76.5	47.5	40.5	85.2	164.3
Oraon	184.6	139.3	75.4	46.2	39.8	86.1	162.1
Bhumij	186.9	139.6	75.0	46.7	40.4	86.5	159.2
Chero	190.7	138.2	72.4	43.5	38.0	87.3	158.4
Santal	184.8	140.7	76.1	45.7	40.6	88.8	161.4
Kharwar	185.7	140.2	75.5	45.0	40.4	89.7	160.5
Munda	185.9	138.6	74.5	44.7	40.2	89.9	158.9
Korwa	185.2	137.8	74.4	44.0	40.7	92.5	159.5
Kurmi	185.6	140.5	75.7	47.2	39.0	82.6	160.8

The Ethnological Committee of the Central Provinces now in Madhya Pradesh, in its report classifies the aboriginal tribes of those states under two headings, Kolarian or North and Dravidian or South. These tribes are as follows: —

Kolarian	Dravidian
1. Kol	1. Gond
2. Kurku	2. Bhatra Gond
3. Bhil	3. Mari Gond
4. Binjwar	4. Maria Gond
5. Bhunjiya	5. Dhurwe Gond
6. Bhumia	6. Khatolwar Gond
7. Baiga	7. Agharia Gond
8. Dhangar	8. Halba
9. Gadba	9. Koi
10. Kankar	10. Khond
11. Nahar	11. Dhanwar
12. Manji	
13. Mahto	

The name of a collection of aboriginal tribes, mainly occupying the mountainous districts and plateau of Chhota Nagpur, and found to a smaller extent in the State of Orissa, and some districts of the Madhya Pradesh, is Kol. Kol is a generic word for the whole group of tribes included linguistically within the term Kolarian, but it is generally applied in a more restricted sense, embracing the three principal tribes, viz., the Munda Kols, whose home is in Lahardaga district; Hos of Singhbhum district; and the Bhumi Kols of Manbhum.

According to W. Crooke, Kol is a Dravidian tribe found in considerable numbers along the Vindhya-Kaimur ranges. There is considerable difference of opinion as to the meaning of the name. "Kola in Sanskrit means 'a hog'; and, according to some, the tribal designation is simply a term of contempt applied by the Aryans to the aborigines. According to Herr Jellinghause, the word means 'pig killer.' According to others, like the tribal terms Ho and Oraon it is derived from the Mundari Ho, Hore,

or Horo, which means 'a man.' The change of *r* to *l* is familiar and needs no illustration, while in explanation of the conversion of *H* into *K* we may cite *hon*, the Mundari for 'child' which in Korwa becomes *Kon*, and *Koro* the Muasi from of *horo*, 'a man.' It may be added that the Khariyas of Chhota Nagpur call the Munda *Kora*, a name closely approaching *Kol*.¹⁷ The *Kol* people, when in their primitive state, are hunters and agriculturists, and today as agricultural labourers owing to pressure of population they have spread over a great part of Bengal, particularly North Bengal and Orissa as well as Assam. A large percentage of labourers in the tea gardens of Assam and North Bengal are men and women belonging to the various *Kol* tribes.

According to Dalton, "In features they exhibit much variety, and, I think, in a great many families, there is a considerable admixture of Aryan blood. Many have high noses and oval faces, and young girls are at times met with who have delicate and regular features, finely chiselled straight noses, and perfectly formed mouths and chins. The eyes, however, are seldom so large, so bright and gazelle-like as those of pure Hindu maidens, but I have met strongly marked Mongolian features, and some are dark and coarse like the Santhals. In colour they vary greatly, the copper tints being about the most common. Eyes dark-brown, hair black, straight or wavy, and rather fine, worn long by males and females, but the former shave the forehead. Both men and women are noticeable for their fine erect carriage and long free stride."¹⁸

Kurku. They are mostly black, with flat faces and broad flat noses, high cheek bones and thick lips, and it is difficult to distinguish them from *Gonds*. This tribe is characterized by shyness and inoffensiveness. "It is hard to believe that only fifty years ago they were the most reckless and daring of robbers, and that their depredations filled the whole of the Norbuddha valley with terror. There has probably never been a stronger instance of the character of an entire race being completely changed in a generation by peaceful government."¹⁹ *Kurku* tribes cultivate the ground, cut grass and firewood, and lead for the most part a precarious existence. They worship their ancestors, have no special priesthood, do not eat the flesh of cow. The *Kurkus* have numerous gotras, or clans; some of which are the following:—

17. W. Crook, *The Tribes and Castes of North Western Provinces and Oudh* Vol. III, p. 294

18. Colonel Dalton, *Descriptive Ethnology*, Quoted by Crooke in Vol. III, p. 295.

19. Rev. M. A. Sherring, *Hindu Tribes and Castes*, Vol. II, p. 162.

- | | |
|------------|-------------|
| 1. Kasda | 8. Ataker. |
| 2. Bethe | 9. Akhundi. |
| 3. Chuthar | 10. Tota. |
| 4. Maosi. | 11. Bendra. |
| 5. Busum. | 12. Tandil. |
| 6. Dharma. | 13. Selu. |
| 7. Sakoma. | 14. Atkom. |

Two days are required for the marriage of a Kurku. "On the first day, the relatives of the bridegroom go to the bride's house, and bring her to her intended husband's house; on the second day, they tie together the garments of the two and cause them to join hands and run seven times round a 'mahowa tree'; after which they are conducted to the bower prepared at the husband's house. Then they are reminded of their having been knotted together; after which they all feast and drink, and one having lifted the husband, and another the wife, on their backs, they dance."²⁰

The Kharwars and korwas are two jungle tribes of Chhota Nagpur plateau. The hills are covered with forests infested with wild animals like tigers, bisons, deer, etc. The Kharwars, and the Korwas seemed to be progressive tribes. They are very hard working people. The Kharwars have physical features such as black and straight hair, narrow nose, thinner lips. Ethnographic investigation shows that the Kharwar type described in Calcutta Review are as follows:—

"There is nothing peculiar in the skull, but a slight depression from the extremities to the eyes, and downwards gives a height to the cheeks and a protrusion but closeness to the lips, imparting an expression of shyness, for which the Kharwars are noted. The chest is rather narrow, the abdomen large, the limbs long and flat, the gait erect, but fingers and toes disproportionally heavy."²¹ Kharwars and Korwas have adopted dialects belonging to the "Aryan and Dravidian families." The basic language of this group, which is still retained to a very large extent, belongs to the Munda branch of what is known as the Austic family of languages. Korwas and Kharwars depend on hunting for their livelihood. In racial type the Korwas were short in stature and black in skin colour, and had definite Dravidian traits. According to Colonel Dalton:²² "The average height of twenty Sargiya Korwas whom I measured was five feet three inches, and of their women four feet nine inches only. In feature the characteristic types are not very prominent; a breadth of face from the lateral projection of the zygomatic arches and narrowness of forehead are the most

20. Hulp. *Aboriginal Tribes of the Central Provinces, Appendix* p. 10.

21. *Calcutta Review*, Vol. LXX, p. 356.

remarkable traits; the nose, chin, and mouth are better formed than we generally find them among the rude tribes of the Dravidian stock; and notwithstanding the scarecrow tradition, the Korwas are, as a rule, better looking than the Gonds and Oraons The women appear ground down by the hard work imposed upon them, stunted in growth, black, ugly and wretchedly clad, some having only a few dirty rags tied round their persons and in other respects untidy and unclean.' :- Dr. Ball noticed particularly "The unkempt condition of their matted locks of hair, in which they commonly hitch the shafts of their arrow."²²

The Cheros are a plough cultivator tribe in Mirzapur where their number, according to the census of 1931, was only 4000. The 1941 census put their number at 2000. Many of them are employed in the iron and manganese mines of Keonjhar and Mayurbhanj. They belong to the same racial stock as the Korwas and the Khorwars. W. Crooke offers the following argument regarding the origin of the Cheros, "A word may be possibly of non-Aryan origin. It has been connected with the Hindi chela (Sanskrit Chetaka, Chedaka, 'a slave')."²³ Sir G. Cambell's theory that Chero-Khero, Kharwar is not probable. The ethnology of the cheros has been to some extent obscured by the fact that they are in Bengal perhaps the most advanced of the Dravidian race. Colonel Dalton calls them the last Kolarian tribe dominant in the Gangetic plain.²⁴

The Santhals are a very large tribe, one of the largest in India, now approaching the three million mark and they are scattered over a wide area of Chhota Nagpur plateau, with a special concentration in Santhal Parganas. The Santhal and Oraon depend largely on permanent plough cultivation for a living. A large number of labourers in the tea gardens of Assam and North Bengal are Santhals and Oraons, Many Santhals, Oraons and others have been making a living by working in the iron and manganese mines of Singhbhum and Keonjhar. Rice and Millets are the crops they raise.

According to H. Risley the existence of Totemism in India on a large scale has been brought to notice only in recent years; we find in the Dravidian region of India a large body of tribes and castes each of which is broken up into a number of totemistic septs. Each sept bears the name of an animal, tree, a plant, or of some material object, natural or artificial, which the members

²². Colonel Dalton, *Descriptive Ethnology*, p. 226.

²³. Ball, *Jungle Life*, p. 667.

²⁴. Crooke, *The Tribes & Castes of the North Western Provinces & Oudh*,

Vol II, p. 214.

²⁵. Dalton, *Descriptive Ethnology*, p. 225.

of that sept are prohibited from killing, eating, cutting, burning, carrying, using etc. Continues Risley, "Well-defined groups of this type are found among the Dravidian Santhals and Oraons, both of whom still retain their original language, worship non-Aryan gods, and have a fairly compact tribal organization." The following are specimens selected from among the seventy-three Oraon and the ninety-one Santhal Septs:—

Oraon		Santhal	
Name of Sept.	Totem.	Name of Sept.	Totem
Tirki	Young mice	Lrgo	Rat
Ekka	Tortoise	Murmu	Nilgai
Kispotta	Pigs entrails	Hansda	Wild goose
Lakra	Hyena	Marudi	A kind of grass
Bagh	Tiger	Besra	Hawk
Kujrar	Kujrar tree	Hemron	The constella- tion.
Gede	Duck	Saren	Piciades
Khoepa	Wild dog	Sank	Conch-shell
Minji	Eel	Gua	Areca nut
Chirra	Squirrel	Kara	Buffalo.

The Baigas are one of the most remarkable races of Central India, and differ both in language and appearance from the Gonds. Captain Ward divided them into three great branches:—

1. The Binjwars, or Bichwars
2. The Mundiya
3. The Bhurontias

Each of three great branches of Baigas is sub-divided into clans, as follows:—

- | | |
|-------------|--------------|
| 1. Marabi | 5. Chulpurys |
| 2. Moorkan | 6. Kusyar |
| 3. Umaria | 7. Barharya |
| 4. Subharya | |

These branches, however, differ so much from one another that they may almost be regarded as separate tribes. "One sect, the Mundiya, is known by the head being shaven all but lock. The Binjwars, on the other hand, wear their hair long never cutting it, and tie it up in a knot behind; so do the Bhurontias. In stature some are taller than Gonds; but as rule they are all

very much below the average height of Europeans. The Baigas to the eastward, on the Maikal Range, are much finer specimens of humanity than those near Mandla. In habits, too, they are superior, being a fine manly race, and better looking than their brethren near Mandla. They have not the flat head and nose, and receding forehead, so common among the Gonds, the head is longer, the features more aquiline, and the hands are peculiarly small. Some among them have, however, all the types of low civilization, flat nose, thick lips, and distended nostrils, but on the whole, the appearance of these Baigas of these eastern Ghauts is striking, as compared with that of other wild tribes. In character, too, they differ much from more degenerate aboriginal races. Fearless, trustworthy, independent, ready enough to give communities in a way deserving of high praise. Social crimes, such as abduction of women, are more or less prevalent among them; but these cases are always decided by the village elders, generally to the satisfaction of all parties.”¹⁷

According to Sherring the dress of the men is exceedingly scanty; but that of the “women is much more decorous.” The latter wear bunches of wool tied up in their hair, and are tattooed like Gond women.

The Bhils practise agriculture and the mechanical arts; they work in gold and silver, are carpenters and black-smiths, ropemakers, musicians and wood-carvers. The best available account of the manners and customs of the real Bhils is given in the *Rajputana Gazetteer*—“All Bhils go about armed with the tribal weapons, bows and arrows except the headmen and others of consequence, who carry swords. They are dirty race. The men wear their hair long, and hanging in uncombed masses from their shoulders. Their women are small and ugly. Those of rank being distinguishable by the number of brass rings on their legs, often extending from the ankle to the knee. They kill and eat kine and are much addicted to spirits, vast quantities of which are consumed on festive occasions, which frequently end in quarrels and bloodshed. Fond of fighting, they resort to their weapons on the slightest provocation, but their most serious affrays arise out of cattle-lifting and the abduction of women. If a Bhil runs away with a betrothed girl, a feud will frequently ensue, which will not end till the villages of both sides have been burnt and many lives lost. As a rule they keep tolerably quiet in the winter and the rainy season; but in the summer, between the gathering in of the last harvest and the sowing of the next, they begin raiding on each other; and even the richest think this time, which hangs heavily on their hands, favourable

17. *Quoted* *Quoted by Sherring in Vol. V.*

for paying off old scores. There are sixty different sections of the Bhil tribe in Banswara.

"Bhil children are not betrothed by their parents in their childhood. A Bhil girl often remains unmarried upto the age of twenty or twenty-five. Her father can take no steps of his own accord for his daughter's marriage; were he to do, suspicion would be aroused that there was something wrong with the girl. His friends can take steps on his behalf, but he himself must wait for a proposal from the father of some eligible lad, which he can entertain or not as he pleases. Should he accept the proposal, the lad's father, having provided himself with a couple of pots of liquor, will return to complete the ceremony of betrothal (*sagai*) sitting down under some large tree or other cool spot in the village. The girl's father and his friends join them, and the question as to the amount of money to be paid by the father of the lad to the father of the girl is there and then disposed of. This amount varies according to the status and means of the parties concerned from thirty to sixty rupees. When this is settled, the father of the boy makes a cup of leaves of the Dhak tree (*Buteafrondosa*), and placing it on the top of the pot of liquor, puts inside it two annas worth of copper coins. The girl's brother or some other boy among her relations then takes the coin and turns the cup of leaves up side down. The betrothal is then complete; and nothing remains but to drink the liquor, which is done on the spot. The girl's father then kills a goat and gives a feast to his future son-in-law and his father, after which the latter return home.

"Some four or six months after the betrothal arrangements for the wedding are set on foot. The boy's father takes a present of clothes, a sheet (*sari*), a petticoat, and a corset for the girl, who at once puts them on. Her father, if well off, kills a buffalo, if poor a goat, and gives a feast to the village, and to the boy's father and all his friends. On this occasion a Brahman is called in, and on receipt of four annas from each father, fixes some auspicious day for the wedding. Half the amount previously fixed upon is now paid to the girl's father in cash, and the remainder in kind, in the shape of a bullock etc. On the day fixed by the Brahman for the wedding, the boy, after being well anointed with 'pir', a mixture of turmeric, flour, etc., proceeds to the girl's house, accompanied by all his friends and relations. They halt at the borders of the village, whither the girl's father, with all his friends, and accompanied by drummers and women singing, proceeds to meet them, and after performing the ceremony of 'tilak', that is marking the boy on the forehead with saffron, escorts them into the village, and settles them down under some large tree or in some other convenient spot. The girl's father then returns to his house, and the boy's father pays certain customary dues.

"On the evening of the wedding day a great feast is given by the bride's father, and the bride and bridegroom are provided with a separate hut for the night, while their friends get drunk. Next morning the bride's father presents his daughter with a bullock or a cow, or with any other worldly goods with which he may wish to endow her, and after presenting the boy's father with a takes his him leave to depart.

. Widow Marriage. "The widow of the deceased, if young, is now asked by all the relatives whether she wishes to remain in her late husband's house or to be married again—a ceremony called "natra" If she, as she generally does, wishes to be married again, she replies that she will return to her father's house. If the deceased has a younger brother, he will at once step forward and assert that he will not allow her to go away to any other man's house; and giving up to her he throws his cloak over the widow, who thus becomes his wife, and is taken away by him to his house then and there. Eight days afterwards, when she is supposed to have done mourning for her late husband, her new husband supplies her with a set of armlets in the place of those given by her former lord, which are taken off. The 'natra' is then complete. The younger brother is not, however, compelled to keep his brother's widow should he not wish to do so, but it is such a point of honour that a boy even will claim and exercise the right. Should the deceased have no younger brother, then the widow is taken away by her father or relations eight days after the 'kata.' She will remain at her father's house for a month or two, when either she will be given away in natra to some man with her father's consent or she will run off and take up her quarters in some man's house without his consent. The man she flies to may not wish her to come, and may have no idea of her intention to do so; but nevertheless, once she has placed herself under his protection he in honour is bound to keep her, and she remains as his wife. The widow can go to any man she pleases provided he be of different section to that of her father."²¹

The Gadba is a Kolarian tribe, inhabiting the country to the east of Bastar, now in Madhya Pradesh. The women wear a peculiar dress. "A cloth three feet by six made from the fibre of the bark of the Karing tree, with horizontal bands of red, yellow, and blue, each about three inches in width, is secured round the waist by a girdle, then brought over the shoulder and fastened down in front of the upper part of the body. The girdle is composed of from forty to fifty separate cords of about eighteen or twenty inches in length, lashed together at the ends in front. A chaple of the large white seeds of the Kusa grass strung to-

21. *Rajputana Gazetteer*, also quoted by Crooke in Vol. II, pp. 28-32.

gether is fastened round the hair, as are also sometimes strings of white beads: Large earrings of three coils, of common brass wire, certainly three or four inches in diameter, are suspended to the upper cartilage of the ear, and hang down to the shoulder; and another earring, resembling a brass button with a stalk to it, is worn in the lobe of the ear."

Of the Dravidian tribes, the Gonds form perhaps the largest aboriginal tribal groups in India. The word "Gond" or "Gund", in the opinion of Mr. Hislop, one of the best authorities on these races, is a form of Kond or Kund, that K and G being interchangeable; and the word itself is probably connected with Konda, the Telegu for mountain. Thus the term Gond would signify, etymologically, people of the hills, a designation very suitable to them. The women are better looking than the men. In dress, says Captain Word, in his Settlement Report of the Mandla District, they are, "Usually decent, though they wear only the 'dhoti' and shoulder cloth of coarse country made stuffs, white, with a coloured thread border. For ornaments they wear strings of red and white beads, earrings of brass wire in coil, and polished zinc bosses; sometimes nose rings of the same, and anklets and armlets of copper and zinc mixed, or of pewter and zinc. Wild as these people are, scanty as is their dress, they are by no means above a certain amount of vanity. On festive occasions they wind long dresses of sheep's or goat's wool in their own hair, which is generally worn long and tied up in a bunch behind." The same writer, speaking of the general character of the Gonds, says that though "wild, uncivilized, and ignorant, the Gonds are among themselves honest, faithful, and trustworthy, courageous in some points, and truthful as regards faults they have committed." They are now well-behaved, however turbulent they may have been in former days.

Although the Gond tribes are in reality numerous, yet the Gonds themselves divide their race into twelve branches. These are as follows:—

- | | |
|-------------------|---------------------|
| 1. Raj Gond. | 7. Ojhyal Gond. |
| 2. Raghuwal Gond. | 8. Thotyal Gond. |
| 3. Dadave Gond. | 9. Koilabhtul Gond. |
| 4. Kalulya Gond | 10. Koilopal Gond. |
| 5. Padal Gond. | 11. Kolan Gond. |
| 6. Dholi Gond. | 12. Mudyal Gond. |

The Raj Gond tribe. These are in the highest rank of Gonds. Probably the Gond kings of former times were of this

tribe. There are twenty-seven clans of Raj Gonds in Chanda, as follows:—

Clans of Raj Gonds of Chanda:

A—Clans worshipping seven minor deities

- | | |
|-------------|--------------|
| 1. Kusnaka. | 3. Marawi. |
| 2. Mesram. | 4. Marskola. |

B—Clans worshipping six minor deities:

- | | |
|------------|------------|
| 1. Atram | 6. Pendam. |
| 2. Geram | 7. Salam. |
| 3. Kurmeta | 8. Torral |
| 4. Kopal | 9. Velodi. |
| 5. Ureta | |

C—Clans worshipping five minor deities:

- | | |
|-------------|-------------|
| 1. Alam | 5. Karpeta |
| 2. Dhurwe | 6. Kurura |
| 3. Gaure | 7. Kirnahka |
| 4. Jugnahka | 8. Soiyam. |

D—Clans worshipping four minor deities:

- | | |
|-----------|-------------|
| 1. Kowa | 4. Siram |
| 2. Naitam | 5. Sirnahki |
| 3. Sarati | 6. Talandi |

The Raghuwal Gond tribe. An agricultural tribe of Chindwara.

The Dadave Gond Tribe. Like the Raghuwals, they are agriculturists. The Raj Gonds, Raghuwal Gonds and Dadave Gonds eat food together, but do not intermarry.

The Kalulya Gond. A tribe scattered about in many places. Some of them occasionally become Hindus.

The Padal Gond. The Padals are the religious counsellors of the Raj Gonds.

The Dholi Gond. "Their name is derived from the Dhol or drum" which they beat. These are musical performers.

The Ojhyal Gonds. "They sing from house to house the praises of their heroes, dancing with castanets in their hands, bangles at their ankles, and long feathers of jungle birds in their hair. Their wives tattoo the arms of Hindu women."

The Tnotyal Gonds. They make baskets, and their wives practise medicine in the district.

The Koilabhutal. A wandering tribe.

The Koikopal. "Cow-herds, Kopal is the Gondi corruption of Gopal."

The Kolan Gond tribe. The Kolans do not intermarry with the rest of the Gonds generally, although they are present at their marriages.

The Maria Gond. The Marias are a very large tribe in Bastar, where they are also called Jhoria. The tribe has twenty four clans, as follows:—

A—Clans worshipping seven minor deities:

- | | |
|------------|------------|
| 1. Duda | 5. Tandur |
| 2. Hindeku | 6. Talandi |
| 3. Mesram | 7. Wure |
| 4. Rapanji | |

B—Clans worshipping six minor deities:

- | | |
|------------|------------|
| 1. Gorem | 4. Dosendi |
| 2. Hichami | 5. Werda |
| 3. Katwo | 6. Wuika |

C—Clans worshipping five minor deities:

- | | |
|-----------|------------|
| 1. Dugal | 5. Mana |
| 2. Koilar | 6. Nugwati |
| 3. Kumra | 7. Patni. |
| 4. Kudami | |

D—Clans worshipping four minor deities:

- | | |
|----------|------------|
| 1. Dondo | 3. Mohondo |
| 2. Kondo | 4. Pugati. |

The Murias Gond. They are more civilized than the Marias and form the chief portion of the agricultural population of northern and central portion of Bastar. The chief peculiarity of the Muria Gonds is that their villages have a separate house *bachelors*, and sometimes another for *unmarried women*.

The Marji Gonds. These are really the same tribe as Marias that intermarry with them, yet practically the two are distinct. The Maris are poorer and less civilized than Marias, and reside in the wildest regions, which are altogether unknown. They cultivate the castor-oil plant, tobacco etc.

The Rawan Basi Gonds. They are divided into the following clans:—

CLANS OF THE RAWAN BASI GONDS

- | | |
|---------------|----------------|
| 1. Marobi. | 18. Kumbura. |
| 2. Markam. | 19. Danketi. |
| 3. Workara. | 20. Armon. |
| 4. Sri Am. | 21. Korapa. |
| 5. Takam | 22. Sima. |
| 6. Dhorda. | 23. Andan. |
| 7. Karvain. | 24. Temeria. |
| 8. Warviti. | 25. Darzam. |
| 9. Partili. | 26. Kindam. |
| 10. Sarjan. | 27. Korchu. |
| 11. Chichain. | 28. Kalku. |
| 12. Marskota. | 29. Temerachi. |
| 13. Sarota. | 30. Amega. |
| 14. Padli. | 31. Mehram. |
| 15. Bhadya. | 32. Kuram. |
| 16. Wink. | 33. Nakma. |
| 17. Pandu. | |

The following account of Gond domestic ceremonies by a writer in the Central Provinces Gazetteer may be quoted, as the book is rare:—"Some of the Gond ceremonies are peculiar. Thus, they have seven different kinds of marriages, some much more binding than others, but all supposed to contain a sufficient quantum of matrimonial sanctity about them. The first and surest is when a Gond wants to marry his daughter, he first looks for a husband among his sister's children, as it is considered the proper thing for first cousins to marry whenever such an arrangement is possible; though, strange to say, the rule is only thought absolutely binding when the brother's child happens to be a girl, and the sister's a boy. Even in the opposite case, however, it is very commonly done, as by so providing for a relation for life, the man is said to have performed a very right and proper act. Another reason is that less expense is entailed in marrying a relation than the daughter of a stranger, who is apt to be more exacting. Among the poorer classes who can afford no money as a dowry, the bridegroom serves the bride's father for periods varying from seven or eight months to three years, or sometimes more, according to arrangements made by the parents.

When children are ten or eleven years old, a committee of the village elders is generally held, and the term of apprenticeship decided; the term of service being usually somewhat longer when the youth is serving his uncle for his cousin, as relations are not supposed to extract so much work from the 'Lanjina.' The youth lives in one of the outhouses, and has to perform all the menial work of the household, both in the house and in the field. During his period of probation he is forbidden to hold any intercourse with the girl."

Another description of marriage is "When the woman makes her own match, and declining the husband provided for her by her relatives, runs away with the man of her choice". A case of this sort seldom happens. It is, however, quite recognised among the Gonds that the women have the right to take their own way if they have the courage; and the elders of the village in which the man resides generally endeavour to arrange matters to the satisfaction of both parties. Connected with this is compulsory marriage. Even after the girl has run away from her father's house, and taken up her residence in the house of the man of her choice, it is quite allowable for the man she has deserted to assert his rights to her person by carrying her off by force; in fact not only is this right allowed to the deserted lover, but any one of the girl's first cousins may forcibly abduct her and keep her for himself, if he has the power. Once carried off, she is kept in the house of her captor, carefully watched, until she finds it useless to attempt to resist, and gives in.

Occasionally where the girl has made what is considered an objectionable match with a poor man, who has few friends, abductions of this sort are successfully carried out, but, as a rule, they are not attempted. The last form is for very poor people, or girls with no relations. In the latter case she selects some man of her acquaintance, and going to his house takes up her abode there.

He signifies his acceptance by putting on her arms bangles (*churi*) and giving a small feast to the village elders. Sometimes he objects, if the woman is useless or of bad character; but he gets little redress from the elders; and unless he can induce some other man to take her off his hands he is generally supposed to be bound to keep the woman. As, however, the women are generally good labourers, and well worthy of their hire. A man of property seldom raises any objection, and the women, too, are usually sufficiently worldly-wise to choose for their keepers men fairly well to do.³⁰ In general the tribes are patriarchal, and

30. *Central Provinces Gazetteer*, also quoted by Crooke in Vol. II, pp. 493-494.

the common "form of marriage is by capture." The marriage amongst most of the tribes usually takes place at grown up age. Most of these tribes maintain the youth club or Ghotul, which are membered only by the bachelors. The Gonds, numbering 18,65,000 are a Dravidian speaking tribe, and are scattered in the Madhya Pradesh, Andhra and Madras States. Their language, Gondi, has no literary life, according to Sunity Kumar Chatterji, the people speaking Gondi are no longer a compact bloc. Everywhere, with their advance in life, they acquire the Aryan languages of the neighbouring peoples, like Hindi and Marathi, and in some cases Oriya—all Aryan languages—and also Telegu which is a cultured Dravidian language. In his account of the cultural transition of the Gonds of Bastar Mr. Grigson writes as follows:—

"A large number of persons returned as members of the Hindu functional castes, the graziers, potters, fishermen, weavers, black-smith and others, are in reality members of the primitive tribes speaking their language and only differentiated from them by their occupation. There is nothing in their appearance to distinguish these persons from other aborigines of the State; they follow their religions whether enumerated as such or as Hindus."³¹

The average cephalic index of Maria Gonds of Bastar is 73.04 according to D. N. Majumdar the Halbas, one of the sub-tribal groups, possess the highest mean head length cephalic Index (79.82). In Chhota Nagpur, on the other hand, the type is uniformly medium. Among the larger groups the Chikk (73.8), the Munda (74.5) and the Male (74.8), the Karia (74.5), and the Korwa (74.4) are just included in the long-headed division, while for all the others the mean index ranges about 75 and 76. The following table is a reproduction of W. Crooke's Anthropometric data³²:—

31. W. V. Grigson, *Maria Gonds of Bastar* ; 1938.

32. W. Crooke, Vol. I, *Appendix XL—XLII*

ANTHROPOMETRIC DATA

1	2	3	4	5
Name of type	Vertex of Chain	Anteropos- terior Diameter	Bizygo- matic Diameter	Cephalic Index
Dravidian				
A. Hinduized:—				
Arakh	199	182	129	75.8
Bhangi	210	184	131	73.9
Bhar	202	186	131	73.2
Bind	203	186	131	73.7
Biyar	204	185	130	73.1
Chamar	204	184	131	73.9
Dhanuk	204	180	135	75.6
Dharkar	199	184	129	73.9
Dhobi	204	183	130	74.8
Dushad	208	186	130	73.1
Khengar	205	183	130	74.9
Khatik	204	187	130	73.3
Koeri	205	184	130	73.8
Kumhar	202	185	130	72.4
Kurmi	206	184	130	73.3
Lodhi	206	186	130	72.6
Nat	202	185	129	72.3
B. Ab-iginal:—				
Agariya	197	184	129	72.8
Bhuiyar	203	185	128	73.4
Ehuiya	204	186	130	73.1
Chero	205	186	130	72.6
Dhangar	205	187	131	72.2
Ghasiya	202	186	131	72.6
Kharwar	205	185	130	71.0
Kol	204	183	130	73.8
Korwa	203	186	131	72.0
Manjhi (Gond)	207	185	130	73.0
Panka	201	185	129	72.4
Patari	203	185	128	73.0

FROM W. GROOKE'S SERIES.

6 General Index	7 Frontal Index	8 Nasal Width	9 Nasal Height	10 Facial Angle (Cuvier)	11 Facial Angle (Camper)	12 Nasal Index
154	75.4		...	68	70	...
160	80.1	36	56	66	68	64
155	76.5	..	..	66	69	...
155	77.4	35	52	65	67	67
157	77.2	36	53	64	67	67
156	77.9	..	...	65	68	...
151	77.2	35	57	65	69	61
154	77.2	36	53	65	69	68
157	77.4	34	54	66	68	63
168	77.2	37	51	67	69	73
157	77.4	...	...	65	68	...
157	78.1	35	55	67	66	64
158	79.3	35	55	65	68	64
155	79.1	36	53	67	70	68
158	78.5	36	54	65	68	67
160	78.5	35	52	67	70	66
155	76.7	38	51	62	67	75
153	79.9	40	52	68	...	77
158	78.7	36	55	68	...	65
157	78.7	38	53	68	...	74
157	80.0	37	53	68	...	70
156	81.5	37	52	69	...	71
154	78.5	37	55	66	...	67
158	81.2	37	52	68	...	71
157	77.8	37	53	67	67	70
155	79.5	37	52	66	...	75
159	80.0	38	52	70	...	73
159	79.9	36	53	68	...	66
159	79.2	36	54	67	...	67

The aboriginal tribes of Orissa live in economic stages ranging from hunting and food-gathering through shifting cultivation to settled plough cultivation. The Bishor, Koma and Kutiakandh depend on hunting for their livelihood. The Juang, Bhuiyan and Kandh are shifting cultivators. The Santhal or Santal, Munda etc. depend primarily on permanent plough cultivation for a living. But almost all tribes, whatever their main occupation may be, do some amount of hunting and food collecting unless forests have been cleared away within a reasonable distance.

The agricultural year begins towards January and February. Dr. Arthur Geddes elaborates the seasonal cycle of peasants of the Chhota Nagpur plateau in his famous book—"The Chhota Nagpur Plateau and its Bordering Plains," as follows—"This attempts to show when the cultivators' occupations may be said to fill a normal day, when they demand maximum effort and when, on the contrary, they pass to such easy conditions as approach idleness inviting or forcing him to temporary migration.... In January work is light, except for a little spring harvesting, followed immediately by one ploughing if the soil is not too hard. In February, the hunt is a strenuous and joyous diversion. Ploughing in March, April and May depends upon showers falling sufficiently to soften the land. The idle periods between are varied by festivals.....Heavy May showers, and their wives' complaints, remind the men that the roofs must be repaired before the monsoon sets in June. Final ploughing and sowing, transplanting, irrigating and weeding till the early months of the monsoon. September with its promise of the first harvest of "autumn" rice permits a little festivity... It also permits readily of quarrels being carried to the point of expensive litigation, though such occupations may not be wholly superseded even at other times of the year. The chief winter rice harvest, if it is good, is of course celebrated by jollification.

Even before the harvest has been gathered in at home, some men of the family or hamlet, sometimes accompanied by their women folk, may descend to harvest in the plains, to the mines or to conservancy work in Calcutta. From this they return in time for the monsoon and its labours."³³

NORTH INDIAN TRIBES

This group of the aborigines includes the tribes of NEFA, such as Abors, Nagas, Garos, Daphlas, Akas etc. The Khasis are a matriarchal tribe of Assam. The Khasi tribes are composed of a number of clans. The following are the main clans amongst them:—

33. A. Geddes, *The Chhota Nagpur plateau and its Bordering Plains*, pp 373-374.

1. The royal clans, known as *kisiem*, 2. The Priestly clan known as *ki Lyngot*, 3. The Minister clan and 4. The Plebeian clan.

The changing life of the aborigines of NEFA is attributed to the breaking up of the isolation through efficient and cheap means of transportation. Now they are not solely dependent on forest products. These tribes also practise shifting agriculture. The tribes of NEFA are either patriarchal as for example, most of the Naga tribes, or matriarchal like the Khasis, Garos, etc. The inheritance is handed over to the daughter instead of sons. The bride is married at her own home, and after marriage the bridegroom lives with his wife at her father's house. The daughter receives the lion's share of the family jewellery. If mother has four daughters named Kamla, Bimla, Mithla and Kasi, on the death of the mother the property would pass to Kamla, but not on the death of Kamla to Kamla's daughter. It will go to Bimla and on Bimla's death to Mithla, and so on to Kasi, but at Kasi's death is reverted to the daughter of Kamla. In this way, the whole circle of inheritance confines itself to the feminine members of the family. Owing to the hilly nature of the country and being handicapped by the absence of suitable agricultural implements, the Khasis, who are essentially an agricultural people, have to depend for their livelihood on shifting cultivation, whereby forests are cleared and fired and cultivated for two to three successive years, which may vary from five to ten years according to the amount of arable land available to each village and the fertility of the soil.

The Abors comprising several endogamous groups like the Padams, the Simongs, the Pangis, the Minyongs, the Pasis, the Milangs, the Boris and others live in separate territorial zones and the territory occupied by them extends roughly from the Syoms, a tributary of the Dehang, and the Chedo on the west to the Debang on the east. The Abors, who approximately number 200,000 live in large communities and some of their permanent villages like Demroh, Karko, Riga and Simong contain more than 300 houses each. The main economic basis of the Abors is their shifting cultivation, popularly known as *Jhum*. The staple cereal food of the Abors is rice. Besides the principal cereals, subsidiary crops like cotton, ginger, tobacco and leafy vegetables, though mostly grown inside the rice fields, are also cultivated in specially prepared plots called "*baglek-arik*". Some of these tribes, especially Nagas practise head-hunting.

The other aboriginal tribes are the following:—

Mikirs, originally inhabiting the lower hills adjacent low lands of the central portion of the range stretching from the Garo to Patkoi hills. The Mishmi tribes live in the ranges between

the Debang and Lohit rivers and settled also to some extent in the valley, where they practise jhuming agriculture. "The Mishmis", says Lieutenant G. L. S. Ward, "are small, active, wiry men, with very high cheek bones, flat noses, and a general Mongolian cast of features"⁵⁴

The Mizo inhabit the Mizo district of Assam and the mountain range which extends Southward into Burma. Here the beauty of nature is revealed in multi-hued valleys flanked by mountains, in the murmuring rivulets of soothing green, in the flora and fauna of infinite variety and, above all, in the "gay people of exquisite charms."

The Mizo are mainly an agricultural people. Both men and women participate in agricultural operations. The rice crop is cultivated in two ways:—(1) On low marshy land, which can be regularly irrigated by means of artificial channels cut from the adjoining hill streams, (2) on high lands where the grass and jungle have been previously cut down and burnt on the spot. Sugar cane is grown in some places, and cotton in the lower hills towards the Southern valley. The potatoes, pine-apples and ginger are cultivated in large quantities. Of these, ginger is the main commercial commodity of the Mizos which they bring to market for sale. Manure in the form of cowdung is generally used for rice and potatoes. Irrigation is regularly practised, the water being brought to the land by means of channels cut from the numerous hill streams in the neighbourhood of the fields. The chief cereal crop cultivated by the Mizos is rice, but even of this they do not grow sufficient for their own consumption. According to traditional Mizo customs, they have three feasts connected with the crops. According to Amit Kumar Nag the foremost festival "Chap-chap-kut" is held after the jhums are burnt, about the time of the sowing of crops. Secondly "Fasang-kut" is primarily meant for adolescent people. Thirdly, continues Nag, the 'Chai' consists in all the young men sitting with their backs to the walls, each with a girl sitting between his knees with her back to him. Individual performers dance in the middle, the others singing and clapping hands. Sometimes, the young men and girls collect in the centre of the village and form circle, every girl being between two youths, whose arms cross over her neck, holding in their hands cloths which hang down behind like a curtain. Inside the circle is a drummer, who chants continuously, the young people taking up the refrain, and treading a slow measure in time with the song, while cups of ZU (rice beer) are brought to them in rotation." There are certain other special feasts occasionally given by wealthy persons, sometimes to mark an exceptionally good harvest. In winter days the Mizo women

⁵⁴. Quoted by G. A. Grierson in *Linguistic Survey of India* p. 613. Vol. III, Part I.

settle themselves in some of the operations connected with cloth-making.

The Khamtis are tribes of Shan descent, principally found around Sadiya. They are Budhists. Almost all the Khamtis live in villages built on mountainsides or spurs. They live in platform houses with low roofs, each family owning one. The chief's house is a very large structure, 90 ft. long and 30 ft. broad, with the customary deep 'verandah' or porch in front. Both men and women still retain their national costume, *mek*, a blue cotton jacket and kilt of chequered cloth for the former, and for the latter a blue cloth tied under the arms and reaching down nearly to the ankles, with a jacket above. The existence of dormitories for unmarried boys and girls are well established institutions. "The 'Virgins House' is sacred, and no man is supposed to enter there; indeed, the vigilance of the old maids who have outlived the age of romance prevents any proceeding which might be termed scandalous, and the morality of a Khamtee village is a pleasing contemplation."³⁵

The houses are all built on bamboo piles, with a thatched roof and plank floor, and divided into two or three rooms. The interior of the home is occupied by the carpets and beds of the priests, their domestic utensils, and a shrine with a red canopy, containing several images of Gautama, one of which is a clay model three feet high, and gilded, but of coarse workmanship, another is a small image of white marble, and both are of the ordinary Buddhist type. According to Cooper the Khamtis are inveterate traders, and to their industry Northern Assam is much indebted for the best rice and vegetable, especially potatoes. Continues Cooper, "Although the chief is lord of the soil, the whole community till it on the co-operative system, the chief having his portion allotted to him; after which the produce is equally divided between each house, according to the number of hands in it who have helped in the cultivation. As slavery is an institution among them, well-to-do Khamtis never labour. Besides the common land, small plots are also cultivated by individuals. Free-born people also possess numerous herds of tame buffaloes and oxen used for tilling the ground, and also as a means of barter with the Mishmes."³⁶

All the grain produced by a village is kept in public store-house always built on the river bank so as to be near water in case of fire.

The Khamtis are divided into innumerable clans, each clan having its own village and chief or Gohain.

35. T. T. Cooper, *The Mishme Hills*, p. 147.

36. *Op. cit.* p. 149.

The festival is the Durga-puja, celebrated by Khamtis. "The doctrines of their religion are contained in sacred books written in the Khamti character, but believed in some cases to be of the Pali language. They have not, however, any very definite notion of the religion they profess. They celebrate Thursday as the birthday of Gautama, or Kodoma, as they call him, but of the month and year of his birth they are ignorant. Their principal feasts are on the full moon of Asarh and Aswin. The common people worship both Kodoma and the Hindu Goddess Debi or Durga, but they are not followers of any "Gosain", and they employ in her service their own priests, instead of Brahmans. The priests of Debi are called Pomu, while those of Kodoma are called Thomon (Assamese bapu)."³⁷ Fowls, pigs and buffaloes may be offered to Debi, but not a duck nor a goat; the service of Kodoma consists of floral offerings only. The worship of Durga, "like the custom of burning their dead," is said by themselves to date from time immemorial, but it seems more probable that both practices have been adopted from the Hindu.

The Kukis are a Mongoloid tribe of Assam. Like many tribes of these parts, they are divided into various clans. The Kukis are mainly concentrated in the Lushai Hills, and also in northern Cachar hills. The forests inhabited by the Kukis are covered with bamboo. The Kukis raise only one crop and then relinquish the land and cut down new forests of bamboo for the cultivation of the succeeding year. The Kukis provide most of their "technological requirements" from the bamboo forests. Mats and baskets are manufactured to some small extent from the bamboo or *Dendrocalamus strictus* and sold locally.

The Kukis have some strange customs, one being that "of smoke-drying the dead bodies of the rajahs. After the death of a rajah, his body is kept in this state for two months before burial, in order that his family and clan may still have the satisfaction of having him before them. He is then interred with grand honours, cows and pigs being killed to feast the whole clan, and pieces of their flesh sent to distant villages. The heads of the animals killed at his burial are placed on large posts of wood over his grave. His son, however young, is then elected rajah, and looked up to with an almost superstitious respect. Should a rajah fall in battle by any chance, they immediately proceed on a war expedition, kill and bring in the head of some individual, hold feasting and dancing, and then, after cutting the head into pieces, send a portion to each village of the clan."³⁸ Marriages amongst the Kukis have nothing religious; it is a simple contract

37. Quoted in Assam Census Report 1881.

38. Major J. Butler, *Travels and Adventures in the Provinces of Assam During a Residence of Fourteen Years*, p. 92.

between both the parties. In the remote valleys to the north live the Monbas, Palibos, Ramos, Bokaras and Boris. There are also some 2000 Singphos, who are Buddhist and who speak the only language in NEFA with a script of its own, rather like the Tai. In West Kameng, there are some 34000 Monpas who keep a large number of cattle, sheep and horses and know the art of terrace cultivation. They are deeply influenced by the Buddhist ideals and in their dress and habits have drawn heavily from nearby Tibet.

India's North East Frontier Agency is the home of the several strata of tribal population largely of Indo-Mongoloid origin. Like the tribes in other parts of India, they are an economically backward people. In physical features, according to Dr. Hutton the tribes of NEFA show some resemblance to the Australoids. On the whole, according to Risley the "Dravidian characteristics predominated among them over Mongolian",³⁹ Colonel Waddell, in a paper on the 'Tribe of The Brahmaputra Valley', denies the Dravidian origin and describes them as "Distinctly Mongoloid though somewhat heterogeneous."⁴⁰ As regards the head form and the stature, the two sets of observations are practically identical. In case of the nose Colonel Waddell's data show a far higher proportion of broad noses than Risley, and clearly point to a strong Dravidian element. On the other hand, the orbitonasal index exhibits, though in a less degree, some distinctive Mongoloid characteristics. One can ask for no better illustration of the efficiency of the method of anthropometry in its application to a mixed or transition type than the fact that, while two independent observers have formed different opinions as to the relative preponderance of its component elements, the data obtained by them from two distinct series of individuals correspond to the remarkable extent indicated in the following table:—

PROPORTIONS OF HEAD

(Cephalic Index)	Risley	Waddell
Average	75.2	76.7
Maximum	85	87
Minimum	68	71
Range	16	16

³⁹ Risley, *People of India*, p. 40.

⁴⁰ J. A. S. B. Vol. LXIX, Part III, 190.

PROPORTIONS OF NOSE

(Nasal Index)

Average	76.6	80.0
Maximum	92	109
Minimum	61	67
Range	31	42

RELATIVE PROMINENCE OF ROOT OF NOSE

(Orbito Nasal Index)

Average	110.8	110.0
Maximum	121	121
Minimum	104	93
Range	17	28

STATURE

Average	160.7	159.1
Maximum	174.6	169.5
Minimum	144.0	150.2
Range	30.6	19.3

Physically the tribes of the NEFA are Mongoloid with light skin colour, straight hair and flat nose. The prevalent head form is broad but the "mean indices show some remarkable departures from this type. The Jaintia (Singpho) index is 72.9 thus falling within the long-headed category, and several tribes have indices between 75 and 80." The nose-form appears to have a great range of variations. According to H. Risley, the highest mean index 95.1 occurs among the Garo; according to Colonel Waddell, the width of the nose exceeds its height to an extent indicated by the surprising ratio of 117. Under the head of stature there is nothing much to remark. The Gurungs (169.8) are the tallest and the Miris (156.4) the shortest of the tribes included in the table. The tallest individuals (176) are found among the Tibetans and Murmis, the shortest (141) are Khambus, and Khasias. The following table, indicating the anthropometric data of Mongoloid type, has been taken from Risley's series:—

Tribe or Caste	Dimensions of head		Proportion of head	Dimension of nose		Proportions of nose	Stature
	Length (Glabellal Occipital)	Breadth (External)	Cephalic Index	Height	Breadth	Nasal Index	
Kuki	187.2	142.8	76.2	46.7	39.7	85.0	156.6
Kuki	187.0	143.0	76.4	45	41	91.1	158.7
Ao	179.0	144.0	80.4	44	36	81.8	156.6
Khamti	187.0	148.0	79.1	47	38	80.8	164.1
Mikir	181.0	141.0	77.9	47	40	85.1	163.3
Kasia	183.0	144.0	78.6	44	38	86.3	156.9
Murung	185.4	142.0	76.5	49.0	37.6	76.1	158.2
Dafra	183.0	141.0	77.0	44	37	84.0	160.6
Abor	184.0	142.0	77.1	43	39	81.6	157.6
Miri	178.0	144.0	80.8	44	37	84.0	156.4
Singpho	192.0	140.0	75.6	47	38	80.4	160.5
Garo	183.0	139.0	75.9	41	39	95.1	158.8
Angami	189.0	144.0	78.6	45	37	82.2	163.9
Lhota	187.0	144.0	77.0	43	37	74.1	162.0

The Lepchas constitute the aboriginal element in the population of Sikkim and Darjeeling. Their women wear a coarse robe. Marriages usually take place between the ages of 15 and 20, and are generally arranged by the parents of the boys and girls concerned. The Lepchas are a patriarchal tribe of Sikkim and Darjeeling. Their main occupation is sheep-rearing. In their agricultural operations, the implements of the Lepchas are very simple and crude in the extreme. According to Waddell, in Sikkim, "the first patches of cultivation appear in the forest at about six thousand feet. Above this height little tillage is done on account of the cold clouds and the destructive hail stones which demolish the crops..... The primitive kind of agriculture which is practised here is the same which is common among the wilder Indo-Chinese tribes, and in the earlier clearings which I have seen in the backwood settlements of America. A few acres of the virgin forest are burned down, and the rich black loam, enriched by the wood-ashes between the charred stumps of the

trees is scratched or scraped on the surface and yields abundant crops for about two years, after which period, being somewhat exhausted, it is abandoned and a fresh strip of forest is burned down, which after a year or two is in turn abandoned for a new one, and so on, until after ten or twenty years the first patch, which has lain so long fallow, has again become a jungle, and it is brought again under this jhuming process, as it is called."⁴¹ The people are strongly built, have a rather flat face and the Mongolian eye is a peculiarity.

The most important hill tribes of the "Himalayas West" are the Bhotiyas, Khampas, Huniyas, Rajis and Khasias etc. All these tribes reside within the higher Himalayas. The whole of it has cool summers and extremely cold winters. In the beds of these hills there are fine pastures, which according to the dialect of the region, is called Bugiyal. When snow begins to fall, vertical transhumance is widely practised to the chief pastoral regions.

The Bhotiya women work side by side with their men folk, tilling and toiling in the fields or pasturing their domestic animals on green clad hill sides and meadows. Spinning and weaving are the main occupation of women folk. Settlement pattern follows the principal drainage lines. Hence all the highest habitations are on the banks of the rivers. The Bhotiya villages are situated to the North of the points where the rivers cross the line of the great Himalayan peaks at an elevation of 9000 to 12,000 ft. At the head of these valleys are the Tibetan passes or Ghata through which the Bhotiyas travel and trade in the Tibetan markets. Owing to snow the frontier is not usually passable before the end of June, and remains open till the middle of October, though snow storms in that month sometimes overtake the traveller and cause great loss. Though only the Bhotiyas are able to cross the frontier and trade direct with Tibet. Tibetan trade is the most important occupation of the Bhotiyas. The chief articles of import are salt, wool, sheep and goats and ponies etc., which are paid for by exports of grain, cloth and cash. The merchandise is carried on pack animals or by the Bhotiyas themselves. For such articles as grain, salt, wool which can be made up into small loads, sheep and goats are generally used. The grain etc., is sown up in a sort of packsaddle locally called Phancha, hanging on either side of the animal's back. The cattle of the Bhotiyas are usually remarkably small sized, sheep and goats are used as the beasts of burden. In the extreme north of newly created Uttara Khand subdivision of Ghamoli district, the grassy expenses situated between the upper limit of the forest and the region of perpetual snow

41. L. A. Waddell, *Among the Himalayas*, p. 116.

known as buniyal or payar, are the summer grazing grounds of Bhotiyas. Honey gathering is the side occupation of the Bhotiyas. The wild bees build their combs on the face of a steep precipice. The comb is brought up by a man let down from the top by a rope attached to his waist. There are various ways of getting the bees to evacuate the hive. Sometimes they abandon them naturally after consuming the honey. In other cases a few handfuls of flour are thrown down from the top of the cliff, attracted by which the bees leave the comb. In other cases the man whose limbs and face are first carefully covered with cloth, takes down with him some smouldering rags or green wood and smokes out the bees. The honey is very dark coloured and practically uneatable. The best honey is gathered in the month of Kartik (October-November) and very fine combs can be obtained. The wax is melted down and sold locally, part being finally exported to the near markets.

The Khampas come next to Bhotiyas. According to H. Harrer, "the Khampas must mean an inhabitant of the eastern provinces of Tibet which is called Kham"⁴¹ Continues Harrer "Like all Mongols the Tibetans have almost no hair on their faces or bodies; whereas we had long, tangled, luxuriant beards. For this reason we were often taken for Kazaks, a Central Asian tribe whose members migrated in swarms during the war from Soviet Russia to Tibet. They marched in with their families and flocks and plundered right and left, and the Tibetan army was at pains to drive them on into India."⁴² At present the Khampas are dwelling in the border area of Nepal and India. Their religion is Buddhism which they profess vehemently. During the winter snowfalls they descend to the lower Himalayan regions and follow trading activities with the remote villages situated at the foot-hills of the Himalayas. As is most expectant, their main occupation is the rearing of goats and other beasts of burden, the Mongolian peculiarities being more strongly developed in them. Physically they are short to medium stature, epicanthic eyefold, broad headed, flat nose sometimes depressed at the root. The hair growth on the body is very scant. There is a total absence of pubic hair in the Khampa women. Due to their hardy nature the men and women are well-built, with a natural reddishness on their faces. Little local trade is carried on between the Khampa tribe and the villagers in the adjoining villages. The Khampa exchanging their bitter (Katwa) odoriferous plant (Jambu) and midder (Majitha)—greatly esteemed for its medicinal qualities—for grain. The Khampa men and women are excessive drinkers, they call it as Jand (Jand is a local made liquor).

41. Heinrich Harrer, *Seven Years in Tibet*, p. 21.

42. *Op. cit.* pp. 109-110.

The Khasias are a patriarchal tribe of Jaunswar-Bawar. Jaunswar-Bawar is situated in the North-West corner of the Dun and lies between the Sirmur and Tehri districts. The place is watered by the Ton on the North-East and the Jamuna on the South. Full of steep and rugged mountains and gorges, this district is thickly wooded with the tall and stately deciduous Sal, Oak, Spruce and Silver oaks are also found in abundance. The forests teem with wild game. Their usual occupation is the lumbering. The Khasias of Jaunswar-Bawar in Dehradun district, on account of the rugged topography and cold climate, practise pastoralism, rearing herds of sheep and goats, which provide them their clothing as well as their food in the form of meat, which is a dominant item of their diet. The Khasias practise terraced cultivation on the steep hills which yield poor crops. The women work in the fields and do most of the agricultural work, except sowing and ploughing, and also help in irrigating the land. The ringal or *Saccharum spontaneum* are woven into basket and mats in Jaunswar-Bawar. The riches of a Khasia family are manifested in the length of the cord, worn by the head of the family around his waist, it sometimes measures 70 to 80 ft. in length.

The other important tribes belonging to this group, are the Kannets of Kulu and Lahul. Geographically, the region is densely covered with forests. The main occupation of the people, therefore, is lumbering and cattle and sheep rearing. The cultivation that is carried on is by forming terraces on the slopes of the hills.

The chief racial distinguishing features amongst the tribes of Northern India are—epicanthic eyefold, flat nose and face, skin colour on the head black, broad headed, scanty growth of beards and moustaches, stature is short, but exceptionally long such as that of Huniyas, they are mostly tall statured. Physically all these tribes, including the women, are well built with muscular bodies.

THE UNION OF TWO SOULS (MARRIAGE)

There comes a stage in every man and woman's life, when each of them desires to have a companion of the opposite sex. The implementation of this desire was brought about by the creation of the institution of marriage. The main criterion lying behind the institution of marriage is to debar the immoral sexual acts between the male and female. According to Dr. Stone, "Man and woman may marry for any number of individual reasons. Basically, however, they seek in marriage the main objectives..... a stable, permanent association based on mutual affection, on love and companionship; the freedom and privilege of sexual relationship, and the establishment of a home and family. Love and companionship, sexual intimacy, and procreation are,

then in our culture at least, the main motives of marriage." The basic purpose of marriage is the preservation of human race. Again Dr. Stone says, "Biologically, again, the object of marriage is not to legalise a sexual union, but rather to ensure the survival of the species and of the race."

Marriage has appeared in various forms:—

(1) Group marriage. In which all the women of one class are regarded as the potential wives of all the men of another class. This was the most primitive form of marriage in which "the group of men were conjointly married to the group of women."⁴⁴

(2) Polyandry. Is the social usage of some races in certain stages of civilization, in which the women normally form a union with several husbands. Polyandry is practised from the point of view of economy. As many brothers have only one wife, the sons begotten by them would also have, in due course, only a single wife. In this way division of ancestral property is naturally checked.

(3) Sororate. "Where there are several sisters in the family they are all regarded as the wives of the man who marries the eldest of them"⁴⁵ On the other hand a man's wives are automatically inherited by his younger brother, a usage technically referred to as the Levirate. Levirate marriage is practised chiefly by the Bhils, provided that a man should marry his brother's widow, even if he had one wife.

(4) Polygamy. Is the marriage of one man with several wives. The foremost and important criterion lying behind this institution of polygamy is to provide some additional working hands to the family, in household works, in the field operations and vice versa.

The secondary motive in encouraging polygamy is the sterility of the first wife and in order to beget sons and to continue the family chain, the husband is compelled to marry a second time. "It is thus a widespread practice for the husband to spouse a second woman in the hope of gaining issue through her."⁴⁶

(5). Monogamy. In which a man has only one wife, is thought to be civilized and modern form of marriage. Monogamy is now prevalent in almost all the civilized countries of the world. On the other hand, Polygamy is found amongst certain primitive tribes of the world. Polygamy is for wealthy men, who can afford three and occasionally even five wives. But according to Russell and Hira Lal, "A Gond who had seven wives in Balaghat

44. Lowil, *Primitive Society*, p. 37.

45. *Op. Cit.* Quoted on page, 31.

46. *Op. Cit.*, p. 40.

was accustomed always to take them to the Bazar, walking in a line behind him."⁴⁷

Bhil marriage differs somewhat from that of Gonds. The Bhils generally marry at the age of 15 to 20. The marriage is generally of the form of levirate, after the death of the husband second marriage is also done. In case, if a man gets his widow daughter married to some other and if the deceased's relations are all alive, the latter put up the matter in the Panchayat, as a consequence of which the mistaken father has to pay something as a compensation to the other party. In cases when the widow marries with some other person not belonging to her deceased husband's family, the successors of the latter often fall in enmity with the widow's second husband, and sometimes the latter's house is set on fire. In this way the widow is thought to be purified and taken back. Such kinds of orders are given by Panchayats. Widow remarriage is practised amongst them only after the Panchayat's approval. According to it a widow can marry her husband's younger brother. But when the widow does not have any male member in the family, she can marry other person only after seeking the consent of village Panchayat.

The Todas own to exogamous groups amongst them, the Tartharol and the Teivaliol, between which, "Legal matrimony is prohibited," although considerable inter-mixture has taken place amongst the Todas, the Tartharol restrict their marriages to themselves occasionally taking brides from the Teivaliol affiliation but must seek a Tartharol of some section other than his own." In general the Toda family is polyandrous. Polyandry is usually said to be the effect of an excess of males over females, and it is certain that there is such an excess in Toda family, where "in 1871 there were 1490 6 men for every 100 women; in 1881 130.4 for every 100; in 1891, 135 9 and in the census of 1901, 127.4 men for every 100 women."⁴⁸ It has been said that polyandry generally results from female infanticide⁴⁹, but there is no trace of this ever having existed in Toda family. Polyandry amongst the Todas is of "Fraternal variety", i.e. if a man marries a woman the former's brothers are supposed to be the husbands of the bride or expressed in other way the new-comer bride becomes the wife of all the male members of the family having fraternal relations amongst them. The fraternal type of polyandry has such deep roots amongst the Todas that even the newly born subsequent brothers in a family are treated as the husbands of the wife of their eldest brother. During the pregnancy of the wife the eldest of her husbands brother performs the bow and arrow ceremony "by which legal fatherhood

47. Russell and Hira Lal, *Tribes and Castes of the C. P.*

48. Dr. Rivers, *The Todas*, p. 477.

49. Dr. Lowie, *Primitive Society*, p. 45.

is conventionally established in this tribe, but all the brothers are reckoned the child's fathers." According to Dr. Rivers, "Sexual communism" or group marriage found in Toda community, that is, all the men of different villages are the husbands of one wife, and according to Dr. Lowie, "the situation becomes more complicated when a woman weds several men who are not brothers and who, as may happen, live in different villages. Then the wife usually lives for a month with each in turn⁵⁰....." In cases when a family has a single son and the latter does not have any brother even then the wife of the former is treated as the wife of all his maternal or cousin brothers, if any. But the form of group marriage, in which a woman is supposed to be the wife of many people living in different villages, is not practised in the Toda community. The carpenters of Travancore, now in Kerala also practise fraternal polyandry. A group of brothers own one wife or wives. The elder brother enjoys a privileged position in the polyandrous society. According to Caldwell, "The monstrous custom of polyandry, or of one woman having several husbands, is sometimes practised in Travancore by carpenters, stone-masons and individuals of other castes. Several brothers living together are unable to support a wife for each, and take one amongst them, who resides with them all. The children are reckoned to belong to each brother in succession, in the order of seniority."⁵¹

The Juangs marry the daughter of their maternal uncles. Unrestricted love amongst them is not considered bad. The chances of divorce after marriage are very rare, because marriage itself is connected with the wishes of girls and boys. No religious priests are sought during marriage, the bride and the bridegroom participate in a communal dance, which fulfils the prime conditions of marriage. Divorce is adopted amongst them in case of bigamy, widow marriage, and sexual corruption. A small bride price is usually demanded. Widow remarriage and junior levirate are allowed.

Monogamy appears to be the rule of Chero family. "Some Cheros admit that concubinage is allowed, and that a widow or divorced woman may go and live with anyone she likes; but this custom, too, appears becoming gradually discredited. Girls are said to be allowed little liberty before marriage; but it seems certain that many marriages are carried out when pregnancy is the result of an antenuptial intrigue, in which case the alliance is recognised on her father giving a tribal feast (bhoj bhat); but if her paramour be of another caste she is permanently excluded. Like those in Chhota Nagpur the Mirzapur Cheros profess to marry

50. Lowie, *Primitive Society*, p. 43.

51. Caldwell, *Journal of the Anthropological Society of America*, 1-3, G. F.

their children between the ages of five and ten. Any relation may act as negotiator (*agua*). Though her father receives the bride-price it is spent on the marriage and he is expected to give her a dowry as far as his means will allow. The customs regarding divorce, widow-marriage, the levirate, and succession, are the same as among the Kols.⁵²

The marriage ceremonies of the Reddies are performed in the house. The custom observed at marriage in this tribe is singular and unnatural. The rule is that, "in all cases in which it is possible, a man should marry his sister's daughter,—that is, his niece on the mother's side. They will not marry at all into the families of their father's brothers or mother's sisters, on the ground of consanguinity! The law of entail, as interpreted in the civil courts, is connected with this rule of marriage; for the hereditary property of the father must descend to the issue of his son and grand daughter."

In general the Kamar family is Monogamous. They do not encourage divorce. If she fails to bear children, it is customary to take younger sister of his wife as his "Chootki" or Junior wife. If the second wife gives birth to a daughter, husband is not supposed to be satisfied with her. He wants a male child, and if his third wife does not give him one within a short time, "he is thinking of bringing a fourth". Levirate marriage practised chiefly by the Kamars with the Kamar's brother of the deceased had an incontestable right to the younger widow, if there are two or three brothers who can marry her she is permitted to choose from her husband's kinship. If the man she chooses is not unwilling, a date is fixed for her marriage.

A woman, in Chenchu tribe who is disobedient to her husband or incompatible in temperament is put away. Such divorced women may marry again. On the other hand, a woman is also at liberty to relinquish a husband whose affection she has reason to believe has been transferred to another woman. The social code of Chenchus does not, however, prohibit him from keeping his wife's company during the day, and both are at liberty to make excursions into the forest and spend their honey-moon in the shadowy vistas of sylvan beauty. Seduction of an unmarried girl is an offence punishable by a fine which is 'eaten' by the tribal council and the offender is compelled to marry the girl.

Marriage in the Nagas usually takes place between the ages of 20 and 25, and is generally arranged by the parents of the boys and girls concerned. The Naga family is generally monogamous.

52. W. Crooke, *The Tribes and Castes of North-western Provinces and Oudh*, Vol. II, pp. 217-218.

53. Rev. M. A. Sherding, *Hindu Tribes and Castes*, Vol. III, p. 192.

Head-hunting is a necessary preliminary requirement of marriage, as it is in most "if not all genuine head-hunting tribes is to be explained by the idea that unless a man has taken heads he has no surplus soul matter about him to beget offsprings."²¹ In the Naga Hills of Assam in the Bhoka (Voka) tribe one of the sub-tribal groups, a curious custom prevails among them, it is that till a young man, according to R. G. Woodthorpe, "is married he goes perfectly naked, and he at once adopts a waist cloth when he takes a wife to himself." Naga women, like their men, are strong and courageous, and after marriage the wife takes a high place in the family. About the position of women in the Sema Naga tribe, writes J. H. Hutton, "Though they are more restricted in the matter of the possession of property and in sexual licence than the women of the Angami and Ao tribes, is probably higher socially, as it is morally than in either of them, at any rate as far as the families of chiefs are concerned." Continues Hutton, "Marriages are usually arranged on the basis of convenience and though a girl is never married against her will, most of the arrangements is done for her by her parents and a wife is chosen primarily for what she can do rather than for her looks. In her husband's house-hold, the wife takes a high place, the children are treated kindly."

The Khasis and Garos are matriarchal tribes of Assam. The most curious of their social customs is the importance attached to female descent and female authority. The husband marries into the wife's family, the wife or her mother being regarded as the head of the house-hold. Property brought by the husband to the wife's house reverts to his own family at his death, being, together with his ashes after cremation, made over by his widow and children to the youngest sister of the deceased, who inherits all ancestral property and property acquired previous to marriage. Property acquired during wedlock goes at the death of the husband to the widow and children, but this custom varies in different parts of the country, the inhabitants of the Southern slopes and valleys recognising no difference between property acquired previous to or after marriage, children here inherit all property. If there are no children, the property goes, on the death of the husband, to the nearest of kin who performed the funeral obsequies. Relatives who do not join in the performance of such ceremonies do not share. If the children are nonage, and incapable of performing the funeral ceremonies, the property becomes temporarily alienated to the relatives who perform the same, but passes to the children when grown up, on payment of the expenses incurred by the relatives. The same is the case with the Garos. The youngest daughter of the father remains the legal successor of the property.

²¹ J. H. Hutton, *Customs of India*, 1931, Vol. 1, Part I, pp. 472-403.

The daughter inheriting the property has to marry with her maternal brother. The whole earnings of the Garo males are treated as the property of their mothers and sisters. The Garo women marry only with the person belonging to their father's clan.

The Abors practise polygamy. Polyandry is also known to them. Thus among the Abors of NEFA Capt. Dalton found three or four wives common, and the rich has "as many wives as he can afford to buy; the wealthy thus monopolises more than his share, and if another revolting practice that the polygandiasim, did not obtain, many of the poorer classes would probably be debarred from all share of conjugal felicity. It is not unusual amongst these Abors for two brothers to have one wife between them." Dalton goes on to say that, "Amongst the Chulikattas, to the East of the Padam, great chiefs have been known to have had as many as sixteen wives at a time. The Digaroo and Tyung Mishmis are equally unlimited in their luxurious propensities, one of them, well known in Assam, appears in the plains every year with a new wife."

Polyandry and Monogamy are all found in Jaunswar-Bawar. It has been said that the common cause of polyandry is female infanticide, but the cause of infanticide seems to vary.....³⁵ But female infanticide has not ever been practised in Jaunswar-Bawar. The child marriage is practically practised amongst the Bhotiyas. Among them the age of marriage for boys has come down from 15 to 16 and for the girls from 10 to 13. Monogamy is practised among the Bhotiyas, widow remarriages are forbidden. According to Dr. D. N. Majumdar, "The traditional method of Bhotiya marriage is by capture when a boy has developed sufficient intimacy with a girl, he takes her away from her village with the help of his friends. The girl is kept closed in a room for four to five days and then is induced to marry. Even a married girl is not always safe from being thus spirited away."³⁶ Here we have no comments to make except to draw attention to a mistake of Majumdar, there does not seem to be any foundation for the above quotation. Marriage "by capture" is not practised amongst the Bhotiyas. If the horoscope of bride and bridegroom agrees, the marriage is usually arranged by the parents of bride and bridegrooms. The Khampa is a pastoral tribe, sometimes weavers and mostly local traders. Child marriage is absent amongst the Khampas. H. Harrer, "He shared his brother's wife and lived on his flocks. The family seemed to be well off and they lived in a considerably larger tent than those of most nomads."³⁷ Although they live in tents in joint

35. Lowie, *Primitive Society*, p. 459.

36. Majumdar, *Races and Cultures of India*, p. 262

37. H. Harrer, *Seven Years in Tibet*, p. 88.

families, but polyandry is totally absent among the Khampas. Monogamy is the rule of marriage. Sterility in wife often forces a man to make a second wife, and it is usually done in wedding a younger sister or "Kanchi" of his wife, as his junior wife. They are broad-headed and the Khampa are patriarchal as the Bhotiyas. They are non-vegetarian Bhuddists.

The Hunias are polyandrous.⁵⁸ "Monogamy, Polyandry, polygamy, are all found in Tibet. Polygamy is for wealthy man who can afford two and occasionally even three wives."⁵⁹ In Sikkim, however, it is usually a fraternal polyandry that is to say, the conjoint husbands are usually brothers and the practice is that if the eldest brother marries his wife is the joint wife of all the brothers; while if the second brother marries, then his wife is common only to the second and younger brothers, and not to the elder. "If the eldest of a group of brothers marries a woman, she is regarded as the common wife of all the brothers. It does not, however, necessarily follow that she will cohabit with all the younger brothers. She exercises much liberty in this regard, and it will depend upon her pleasure as to whether she will cohabit with any particular younger brother. If the eldest brother (*i. e.* the real husband) dies, the wife passes to one of the younger brothers according to her own selection. Should her choice fall on the next brother, she will still be the common wife of the younger brother. Should, however, she select any of the younger brothers, she will be the common wife only of those younger than him, and if he be the youngest, she will be his wife only. If the eldest brother of a group of brothers does not marry, but the second or third brother does so, then the wife will be common wife of such second or third brother and his younger brothers only. Elder brothers, in such cases, will separate and leave the family, having no claim on the wives of the younger brothers."⁶⁰ Fraternal variety of polyandry is practised among the Lepchas, and Levirate marriage is also practised generally in the Lepcha community. The marriage is generally arranged by the parents, the incumbents are not forced to marry against their will.⁶¹

SUPERSTITIONS

The chief home of the tribes is in the inaccessible parts of the virgin forests and barren hills. The hills and mountains have isolated them from the civilized world. They are very conservative and orthodox. At the time of fatal diseases and other natural calamities, they observe many kinds of enchantments, according to

58. *Op. Cit.*

59. Charles, *The People of Tibet*, p. 198.

60. Quoted in *People of India* by Raley, p. 202.

61. John Morris, *Living with Lepchas*, p. 220.

the magnitude of the disaster the sacrifices of hen, oxen etc. are made. Amongst the Kanikkars when "any one takes ill the head-man is at once consulted; he visits the sick and orders two drumming and singing ceremonies to be performed. A whole night is spent in dancing, singing, drumming, and prayer for the recovery of the patient"⁶² The Pulayars burn their dead close to the dwelling hut, and "those who are better off are buried in a room in their own house, at a depth of about four feet This is done through affection to the deceased; still it is rare, and no women are so burned.... The soul does reside there—this is what is desired. The spirit is called "vadha", or familiar, and will not harm the survivors, but watch over their interests and protect them from disease and danger."⁶³ The same is the case with the Nayadis. According to E. Thurston, "The Nayadis burn their dead close to the dwelling hut. The bones are collected on the seventh day, and preserved in a pot, which is kept close to the hut. Pollution is observed for ten days, during which enangan (relations by marriage) cook for the mourners. On the tenth day all the sons of the deceased go, together with their relatives, to the nearest stream, and bury the bones on the bank. The sons bathe, and perform "Beli". This ceremony is performed in order that the soul of the departed may enter heaven, and that ghosts may not trouble them."⁶⁴

The Juangs believe in ghosts and spirits. They worship a featureless goddess, which is called as Bonga. According to Juang the goddess is manifested in men, animals, trees and every other natural features. They also worship the earth and sun and during their gloomy days they perform sacrifices of goats and animals. They pay great respect to their elders. The dead are burnt and the funeral ashes are thrown into a river, and during certain occasions, food and clothing are bestowed upon their dead relations. During certain specious occasions, they worship their gods with devotion. The same is the case with the Bhils. The dead are burnt near the river or a local stream, as amongst the Hindus; and some flowers and salt are also thrown into the river, where the funeral ashes of the dead are consigned. They believe that by doing so the dead will not feel any trouble in his journey to the next world. The Bhils believe in transmigration of soul, as amongst the Hindus. Some twelve days after the death of some relative, they celebrate a religious function through which they believe the deceased will find a place in heaven. The Kotas burn their dead. "Before the body is burnt a blessing is invoked on the village, the spirit of the dead being implored to allow no

62. S. Ma'eer, *The Land of Chhory*, p. 68.

63. *Ibid.*, p. 32.

64. E. Thurston, *Madras Government Museum Bulletin*, Vol. IV, No. 1,

more death there. A cow is then driven once or twice round the corpse and killed, and the dead man's hand clasped round the horn, as among the Todas..... with the body of a man is burnt an axe, a handkerchief, a chopper, small knife, a 'Buguri', one or two walking-sticks, an umbrella, and some cheroots. With a woman a rice-measure, rice-beater, sickle, winnowing-basket, an umbrella, her cloth and jewels in everyday wear. The next day the bones are collected, placed in a pot, and buried near the burning place, a stone being placed over them. The skull, however, is kept till the dry funeral. At the "dry funeral" the skull is wrapped in a cloth and placed in a cot, and the relatives bow to it, Buffaloes or cows are killed, after being made to touch the cot on which the skull is laid. The sickle, jewels etc., are taken out of the fire, and water is sprinkled on the ashes from an earthen vessel, which is then broken. The ashes are not buried, but left where they lie. The Kotai appear to have borrowed their funeral rites to a great extent from the Todas."⁶⁵ The funeral ceremonies of the Todas are singular. The body is burned, and a great feast of slain buffaloes is given. This is termed the "green funeral". Twelve months later a much more important ceremony is held, when a larger number of buffaloes are killed, and friends from the Badaga, Kota and Kurumba tribes are invited to the feast. This is called the "dry funeral."

The Nagas also worship their local gods, the main god being the fire. They also believe in spirits and ghosts. Witch-doctors are also frequently found amongst them whose duty it is to protect the villagers from evil spirits and natural calamities by dint of his supposed divine power. He is held in high esteem by every one. The man of authority in a Naga village is the village chief, who settles the disputes and whose orders are obeyed by all, and the hereditary witch-doctors who are supposed to possess some divine power of curing the disease. The drinking of human blood and the tasting of human flesh is common in the Angami Nagas.⁶⁶ "Head-hunting is practised especially by the Naga tribes. If someone dies in head-hunting far from the home, "a portion of his hair is brought back by his companions to be attached to the head of the wooden effigy, which is then the subject of usual funeral ceremony, and one may compare the way in which the head-hunter so often substituted the hair of his head or even of his living, and unwitting victim for the head he cannot carry off."⁶⁷

During such seasons when the rain does not occur in time, it is considered as a bad omen. A curious custom prevails amongst

65. Madras, *Government Museum Bulletin*, Vol. II, No. 4.

66. Hunter, *Census of India 1911*, Vol. I Part I, p. 404.

67. Dr. E. H. Hutton, *Castes in India*, pp. 203-204.

the Gonds of obtaining rain, it being that, "two naked women to go and harness themselves to a plough at night, while a third naked woman drives the plough and pricks them with goad."⁶⁸ The same practice is found amongst the Baiga tribes and according to Elwin, "Some of the Baiga who have taken to the plough use the method common to Gonds of taking the naked girls to the river where there is a stripe of sand. They take a plough, tie them to it and then drag it along. They use the goad till they bleed. But the girls must be careful not to touch the plough with their hands and the charm will be spoilt."⁶⁹ This strange practice of the nude women to perform certain agricultural rites is not only prevalent amongst the Gonds and Baigas but it is practised in one form or the other by almost all the primitive tribes of the world.⁷⁰ Among the Mishims, "Whenever illness or misfortune of any kind visits them, a sprig of a plant is placed at the door to inform strangers that the house is under a ban for the time, and that it must not be entered, and sacrifices of fowls and pigs are offered to their deities."⁷¹

A curious custom prevails among the Malailis of the Kollimallais, and that is, "When a girl attains puberty, she is relegated for a month to a hut outside the village, where her food is brought to her during that period, and she is forbidden to leave the hut either day or night. The same menstrual and death customs are observed by the Peria Malaialis."⁷² As a sign that "a Girl (among Badagas) has reached puberty, and is available for matrimonial purposes, she is tattooed on the forehead with a needle dipped in the blacks collected from a cooking pot and mixed with oil."⁷³

YOUTH HOUSE

Before leaving this interesting subject, a few words should be devoted to the Bachelor's house or Gotul. Bachelor's house is found amongst the Oraons, Hos Mundas, Nagas, Bihors, Abors etc., various tribes have described them by local names. The Konyark Nagas of Assam call it the YO for girls dormitories and they call the boy's dormitory, Morung. The members of the Bachelor's house, both boys and girls, are allowed, if they wish, to sexual intercourse, and this is done generally in the primitive tribes. "It would appear that sexual intercourse before puberty is either recognised by a formal marriage or tolerated as the gratification of a natural instinct among the great variety of people in all quarters

68. Russell & Hira Lal, *Tribes and Castes of C. P.*

69. V. Elwin, *The Baiga*, p. 349.

70. Haddon, *Head Hunters*,

71. W. Robinson, *A Descriptive Account of Assam*, p. 365.

72. E. Thurston, *Madras Government Museum Bulletin*, Vol. II, No. 3.

p. 165.

73. *Op. Cit.*, Vol. II, No. I, p. 4.

of the globe."⁷⁴ In the Naga Hills of Assam in the AO tribe one of the sub-tribal groups, we find similar sexual relations. According to Dr. Hutton, "The Aos are notorious for the unchastity of their womenfrom the tender age girls are free to do as they like before marriage, and are thus, with difficulty prevented from doing so afterwards. The unmarried girls sleep in small houses built for the purpose in twos or threes, and the unmarried men sleep with them."⁷⁵ As a result of the freedom given to the bachelors of sexual intercourse, rarely do we find a girl virgin at the time of marriage, the virginity is either lost by the premarital sexual indulgence or forceful corruption. According to W. C. Smith, "Prior to wedlock the girls are allowed great freedom. It is said that Naga brides who are entitled to wear the "orange blossom of virginity" on the wedding day are very rare. The girls sleep by twos or threes in separate houses or in the houses of widows, where they are visited by their lovers at night."⁷⁶ On the occasion of certain festivals, a similar practice is found amongst the Garos of Assam, in that the boys and girls freely indulge in sexual intercourse. According to Playfair, "It is an uneven law that young girls and men sleep together after the entertainment is over, and the partnership of one night is expected to precede a life long union. It is not absolutely necessary that they should thereafter live as husband and wife, and no obloquy is incurred by the girl on account of her lapse from the path of virtue, unless she is found later to be an expectant mother."⁷⁷

The Gotul or the bachelor's house is also an interesting institution among the tribes of Southern India. Bachelor's house is found among Hos, Mundas, Oraons, Santhals etc. The Mundas and the Hos call it Gipiara and while Oraons call it Dhumkuria, and amongst the Gonds it is known as Gotul or Gotul Guree. According to Russell and Hira Lal, "Many Gond villages of Chattisgarh and the feudatory states have what is known as Gotul Ghar. There is a large house near the village where unmarried youths and madams collect and dance and sing together at night."⁷⁸ In his account of the dormitory life among the Murias and Marias of Bastar, now in Madhya Pradesh, Grigson writes as follows: "Boys and girls of an age to visit the dormitories are known as "Leyur" and "Leyas" respectively. All the boys assemble at the dormitory in the evening for dancing, games and social and sexual training, sleeping on there after the departure of the girls to their homes late in night. The girls attend at the dormitory in the evening, each girl being paired off

74. Harnland, *The Primitive Patriarchy*, Vol. I, p. 272.

75. Dr. Hutton, *The Aom-Naga*, p. 174.

76. W. C. Smith, *The Ao Naga of Assam*, p. 17.

77. Playfair, *The Garo*, p. 61, op. cit.

78. Russell and Hira Lal, *Tribes and Castes of C. P.*

with a boy of an 'Akomana' clan. The girls have to comb their boy's hair and massage their arms and legs, to dance with them and to be initiated into the mysteries of sex with them. Marriage frequently follows these dormitory unions, but by no means it always does."⁷⁹

The Oraons of the Chhota Nagpur Plateau have youth houses which they call Dhumkuria. Unmarried boys of the Dhumkuria have sexual intercourse with unmarried girls of the girl's dormitory. According to S. Chandra Roy, "The supporters of an older "group-communism" theory will probably see in these Dhumkuria practices relics of the stage when "group communism" might have been, according to them, the rule amongst these people. In the villages where the Dhumkuria no longer exists, things are somewhat better."⁸⁰ The girl's dormitory is termed Pel-Erpa. There is also a separate house for the girls where they pass the night under the guardianship of an elderly Pelo-Kotwar. "The dormitory for Oraon maidens is not, like the bachelor's dormitory, a public building, and its location is not supposed to be known to any one except its inmates and to those of the bachelor's dormitory. There are no office-bearers attached to the maiden's dormitory, but an elderly male Oraon is appointed Pelo-kotwar by the elders of the village to act as the supervisor of the girls during the village dances at the akhara (dancing ground) and the tribal Jatra dances. This Pelo-kotwar is held responsible for any scandal that may occur in connection with the village maidens, and is fined by the village elders for his remissness. As his perquisite he receives one anna (one penny) from each girl when the year's jatras are finished. It is generally the most intelligent among the oldest maidens, however, who is regarded as the natural leader of the other maidens. She is sometimes called the Barka Dhangrin. She, in consultation with the other girls of her class, directs and controls the inmates of the maiden's dormitory. As in the boy's dormitory so also in the girls, three years is the term of novitiate during which the novices have to do all the drudgery connected with the institution. Once in three years a fresh batch of maidens admitted into the Pel-Erpa. The maidens are, like the bachelors, divided into three turns, or grades according to age."⁸¹ The existence of dormitories for unmarried boys and girls are well established institutions amongst the tribal people.

THE FIVE YEAR PLANS AND THE ABORIGINES

As the aboriginal tribes form an integral part of Indian population, the Five Year Plans of the country also have a pro-

79. Gison, *Maria Gonds of Bastar*.

80. S. Chandra Roy, *The Oraons of Chhota Nagpur*, p. 258.

81. S. Chandra Roy, *The Oraons of Chhota Nagpur*, p. 260.

vision for their economic development and cultural enunciation. Tribal areas represent a stage of extreme underdevelopment in resources. Consequently, tribal populations live in a state of great poverty. During the first Five Year Plan some attempt has been made to introduce measures of the economic rehabilitation of tribal population living in forests as well as those engaged in agriculture and other occupations. Some attention was begun to be given to the problem of shifting cultivation, which is a distinguishing feature of tribal agriculture in Assam, Madhya Pradesh, Orissa and Andhra Pradesh.

The Plan provided for about Rs. 28.9 crores for the welfare of tribal people, the total provision being raised in the course of the plan period to Rs. 31.9 crores. Against the total allotment under the plan of Rs. 31.9 crores for the welfare of backward classes, the outlay in each year of the plan was as follows:—

1951—52	...	Rs. 3.25 crores.
1952—53	...	Rs. 3.89 crores.
1953—54	..	Rs. 6.28 crores.
1954—55	.	Rs. 8.09 crores.
1955—56	...	Rs. 11.27 crores.
		<hr/> Rs. 32.78 crores. <hr/>

The Second Plan envisaged a total outlay of 47 crores of rupees for these tribal areas which is detailed as below:—

Community Development	...	Rs. 11 crores.
Economic Development	...	Rs. 12 "
Education & Cultural Development		Rs. 8 "
Health, Medicine & Water supply		Rs. 9 "
Housing and Rehabilitation		Rs. 5 "
Others		Rs. 3 "

In the sphere of community development, multi-purpose plans have been envisaged to function for the betterment of the tribal communities. This multi-purpose planning includes the introduction and development of sedentary agriculture, because the "tribal communities in hilly regions have long been accustomed to the system of shifting cultivation. Though in the part of the country they have already adopted more settled methods of agriculture and have taken to terrace cultivation using the normal village implements, there are areas where the system of shifting cultivation still prevails."¹¹ Shifting agriculture, in view

¹¹ *The First Year Plan*, p. 631

of the growing population, is dying a natural death, and the government too is taking strenuous initiative to make legislation thereby discarding the use of shifting agriculture in order to avoid unnecessary abandonment of land and to accommodate the tribes and landless with the land. Besides this, the planning also includes the construction of better roads and other means of transport and communication, the development of sanitation and medical facilities and last but not least, the propagation and development of cottage industry and co operation.

Several states recognised the construction of tribal economics. Tribal research institutes were organised in Orissa, Bihar, West Bengal, Madhya Pradesh and tribal bureaus were set up in Rajasthan and Madhya Pradesh. In all the states which have tribal populations, tribal advisory boards were organised with a view to helping the state Governments in drawing up and implementing welfare programmes.

CHAPTER VIII

TRIBAL LANGUAGES OF INDIA

India being a huge sub-continent in physical dimensions, containing numerous varieties of human stocks, it is but natural that it should contain a variety of languages. There are three linguistic families predominant in India :—

1. The Dravidian language is spoken by most of the aboriginal tribes of southern India (Fig. 26 and 27).

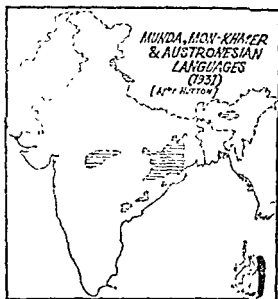


Fig. 26. Languages in India

2. The Aryan language is spoken by the civilised and semi-civilised tribes of northern India.

3. The Indo-Chinese. "They are all spoken by Mongolian races, and they all have some characteristics in common. The most important are the use of monosyllabic words and the so-called isolation, i.e., the absence of form words and, consequently, of grammatical forms."¹

1. G. A. Grierson, *Linguistic Survey of India*, Vol. III Part 1, p. 1.

SOUTHERN LANGUAGES

These dialects are even older than the Aryan because the Dravidians were residing in India even before the immigration of

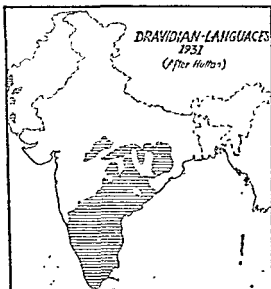


Fig. 27. Languages in India.

the Aryans, and they were driven by them southwards, and even today the Dravidians reside in southern India. Of tribal languages in central India the Census Superintendent of Central India Agency now in Madhya Pradesh, writes as follows: Despite the presence of a large tribal population in Central India, the question of the non-Aryan dialects giving place to the advancing tide of Aryan culture and civilisation does not present itself for the very obvious reason that the process of displacement has already taken place, perhaps a long time ago. The Kol, Baiga and other Munda tribes in Rewa, the Sour in the Bundelkhand, the Sakaria in northern Malwa and Gwalior, have in present day no languages of their own. They speak the Indo-Aryan vernacular of the locality in which they reside. Whether the Bhil had a language of his own we do not know. Probably the basis of his language was Munda but his present language is thoroughly overlaid

with an Aryan superstructure*..... The Gondi (so called) of Rewa is practically a broken Bagheli. If that be so, the Aryan language has already supplanted the language of the Gond. The small number of Korkus who live in villages in Narbada valley have practically abandoned their language and speak Malvi.¹ In border areas bi-lingualism is in fact frequently encountered. Of bi-lingualism in Madhya Pradesh the Census Superintendent of the Central India Agency concludes that—"a striking example is afforded by the tribe of Nahals in the Central Provinces. The people appeared to have originally spoken the Munda language akin to Karku. It came under Dravidian influence and has become mixed form of speech, half Munda and half Dravidian. This in its turn has fallen under the spell of Aryan tongues, and is now in fair way to becoming an Aryan language. If we were to judge by language a hundred year ago we should have called the Munda."²

The Austro-Asiatic languages in Bihar and Orissa are gradually vanishing, but the same language is flourishing in the West, and according to the Census Superintendent, "Since 1921 there has been an increase of about 5,77,000 or 17·7%, in the number of persons speaking... .. tribal languages. They have in fact more than kept pace with the general increase in population, with the result that the proportion of the total population accounted for by them has risen from 832 to 907 per ten thousands. Two principal reasons may be advanced to explain this.....the first is that the aboriginal people themselves have multiplied more quickly than more other communities—partly because their natural rate of growth is superior, and partly because many immigrants have returned during the last decade from the industrial centres of Bengal and the tea gardens of Assam. The second reason is that the procedure adopted at the present census of recording "mother-tongue" and "subsidiary language" separated, instead of the single language 'ordinarily spoken,' has undoubtedly led to a more complete return of tribal languages as the mother tongue of persons who are bi-lingual similarly, in Balasore the number of Santhali speakers has gone up abruptly from 9,633 to 15,120 and more than 10,000 of the latter are now shown as speaking a second language "Oria"very few of the tribal languages are falling into disuse. The only ones in

* Op. Cit. p. 332.

¹ Aravalli range "extend further north, as far as Almor, dividing Meerut from Mewar, and are throughout inhabited by Bhil tribes. These Bhils have also settled in the plains at the foot of the hills and all of them speak one or more of the dialects which have grouped together as Bhil. Further east beyond the Bhil's to eastern and southern Rajasthan, of which the important dialects are Jajuri and Malvi. Jajuri and Malvi are both closely connected with Gujarati, and the Bhil dialects may be considered as linking them together."

— G. A. Grierson, *Linguistic Survey of India*, Vol. IX Pt. II p. 114

which the proportion of speakers is appreciably lower than it was 10 years ago are Bhumij, Juang, Khairia, Mahili and Turi. In the case of Mahili the decrease probably has not much significance, for this dialect (like Karmali) each little more than a variant of Santhali, and it is probable that Santhali was entered fairly often as the mother tongue of persons speaking Mahali."

Sir George A. Grierson classifies the Dravidian family into four main groups, such as :—1. The Dravidian Group, 2. Intermediate Group, 3. Andhra Group and, 4. Borahui. The table given in the last indicates the above mentioned language groups. With the Re-organisation of states separate states have been comprised in each of which one language predominates. Tamil is mostly spoken in Madras State, Telegu in Andhra Pradesh, Malayalam in Kerala and Kanarese in Mysore.

INDO-ARYAN LANGUAGES

According to Rapson, "The Indo Aryan languages have now extended very considerably to the south of Aryavarata, the region

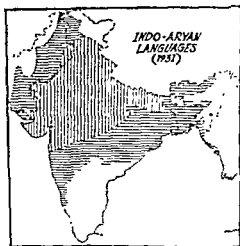


Fig. 28. Indo-Aryan Languages

of Aryans, as defined by Manu, *i. e.* the country between the Himalayas and the Vindhya from the Bay of Bengal to the

4. E. J. Rapson, *The Cambr. Hist. of India*, Vol. I, p. 45.

Arabian sea.”⁴ (Fig-28 and 29), Sir G. A. Grierson classifies the Indo-Aryan family as mentioned in the table below :—1. In-

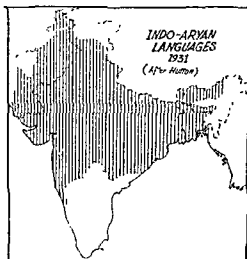


Fig. 29. Indo-Aryan Languages

ner band, 2. Outer-band, and 3. Central Band. The following table will indicate the present trend of Aryan languages in India.

Aryan	Aryan Sub family	Total number of speakers		Percentage
Aryan Languages	Hindi	793	Lakh	23·5
	Bengali	531	„	15·8
	Bihari	270	„	8·3
	Punjabi	158	„	4·7
	Rajasthani	139	„	4·1
	Oriya	111	„	3·3
	Marathi	203	„	6·2
	Gujrati	108	„	3·2

The table evidently shows that the Aryan speaking population constitutes 70% of the total population. The Hindi speaking

people are mainly those of Uttar Pradesh and Madhya Pradesh, but the zone of people understanding and knowing Hindi is wide

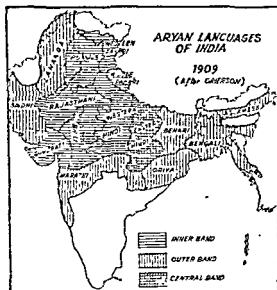


Fig. 30. Aryan Languages of India

enough. It is spoken and understood by the people of the Punjab, Bihar, Madhya Pradesh, U. P. and Rajasthan. Other important languages comprise Bihari, Bengali, Rajasthani, Punjabi, Gujrati, Maratthi etc. (Fig. 30).

INDO-CHINESE LANGUAGES

The tribes which still remain in their native hills preserve their primitive religion and customs and in many cases also their own languages. The Indo-Chinese languages are spoken by Nagas, Garos, Mikirs, Abhors, Daphalas of NEFA; Lepchas of Sikkim and Darjeeling, Ladhaki of Ladakh; which are mostly confined to the southern slopes of Himalayas from Ladakh to NEFA. They speak different languages and the tribes of one community often speak quite a different dialect from those in the next within a short radius, and the "two adjoining tribes cannot converse together, except through the medium of a third dialect, common to both." Formerly the Indo Chinese languages were divided into two groups.¹ 1. Mon Khmer family, 2. Tibeto-Burman. The most

1. G. A. Grierson, *Linguistic Survey of India*, Vol. III, Pt. I, p. 5.

recent attempt at a detail philological classification is that of Robert Shafer, which he divided into seven groups, *viz*: 1. Sinitic,

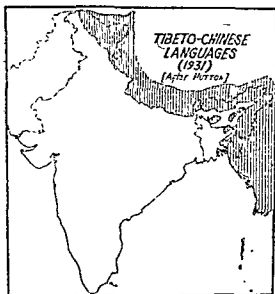


Fig. 31. Tibeto-Chinese Languages

2. Manic, 3. Bodic, 4. Baric, 5. Daic or Thai, 6. Karenic, 7. Burmic. The general character of the Tibeto-Burman dialects possess a high varied vocabulary. This is due to the fact that "most Tibeto-Burman dialects are spoken by wild and semi-wild tribes, and it is accordingly only to be accepted that in them this peculiarity should be so prominent."⁶ The mountainous region between the Assam valley and Tibet, from Bhutan in the west and Brahmaputra in the east, is inhabited by a series of tribes which all speak Tibeto-Burman languages, Grierson includes them in "north Assam group."⁷ The table given below has been taken from Dr. Hutton's Census of India, 1931, indicating the distribution of population of each sex by language.

6. G. A. Grierson, *Linguistic Survey of India*, Vol. III, Pt. I, p. 5.

7. *Ibid.*, p. 563

Total Number of Speakers
1931
(000 omitted)

	Males	Females	Where chiefly spoken
Vernaculars of India	1,80,215	1,65,673	
Austrie Family	2,675	2,677	
Austronesian sub-family (Malaya Group)	3	3	
Malay	2	2	Burma
Salon	1	1	Burma
AustroAsiatic sub family	2,673	2,664	
(Mon Group)	154	151	Burma
Palaung Wa Group	82	88	
Wa Group	11	11	Burma
Palaung	70	70	Burma
Khasi Group (Khasi)	114	120	Assam
Nicobar Group (Nicobarese)	5	5	
Munda Branch	2,310	2,299	Andamans and Nicobars
Kherwari	2,018	2,014	Assam, Bengal, Bihar, Orissa & C. P.
Kurku	85	85	Bihar, Orissa & C.P.
Kharia	79	33	
Sawara	98	97	Madras
Gadaba	22	22	Madras
Tibeto-Chinese Family	6,909	7,101	
Tibetan group	127	125	
Bhotia	127	125	
Bhotia of Baltistan	68	69	Jammu & Kashmir
Bhotia of Ladakh	21	21	Jammu & Kashmir
Pronominalized Himalayan	56	58	
Kanauri	12	14	Punjab
Kirati	44	44	Bengal and Sikkim
Non-Pronominalized Himalayan Group	52	50	

	Males	Females	Where chiefly spoken
Murmi	22	21	Bengal & Sikkim
Magari	9	9	Bengal, Assam and Sikkim
Rong or Lepcha	13	12	Bengal and Sikkim
North Assam Branch	9	9	
Abhor	7	7	Assam
Bara or Boda Group	466	445	Assam
Bodo	148	143	Assam
Garó	117	113	
Tipura (Mrung)	104	44	Assam & Bengal
Mikir Language (Mikir)	64	62	Assam
Naga Group	173	173	
Angami	22	21	Assam
Sema	19	19	Assam
Ao	15	13	Assam
Tangkhu	14	15	Assam
Naga (Unclassed)	4	4	Assam
Kuki-chin group	476	497	
Manipuri	192	200	Assam
Thado	28	29	Assam
Lusai	28	32	Assam
Chin (Other unspecified)	60	61	Burma
Kuki (Other unclassified)	5	5	Assam & Bengal
Kachia Group (Kachin)	76	81	Burma
Burma Group	4,881	5,079	
Burmese	4,032	4,522	Burma
Arakanese	156	152	Burma & Bengal
Intha	28	29	Burma
Lolo-Musoo group	48	29	Burma
Akha	21	19	Burma
Tai group	517	511	
Khum	16	16	Burma
Shan	475	470	Burma

	Males	Females	Where chiefly spoken
Karom Group	669	672	
Dravidian Family	35,848	35,797	
Dravida group	20,644	20,814	
Tamil	10,073	10,339	Madras & Mysore
Malayalam	4,533	4,605	Madras, Cochin & Travancore
Kanarese	5,690	5,576	Bombay, Madras, Hyderabad & Mysore
Kodagu or Koorgi	23	32	Koorg
Tulu	324	308	Madras
Intermediate group	1,797	1,812	Bihar & Orissa
Kurukh or oraon	521	517	Bihar & Orissa
Malto	35	36	Bihar & Orissa
Gondi	926	939	C. P. & Berar
Kandhi or Kui	288	289	Madras, Bihar & Orissa.
Kolami	16	13	Madhya Pradesh
Andhra Language group (Telgu)	13,291	13,983	Madras, Hyderabad & Andhra
North Western Language (Brahui)	115	92	Baluchistan
Indo European Family	1,34,083	1,23,410	
Eastern Group (Iranian)			
Baluchi	334	284	Baluchistan & Bombay
Pastito	895	742	N. W. F. P.
Dard group	820	690	
Shina	36	32	Jammu & Kashmir
Kashmiri	788	656	Jammu & Kashmir
North-Western Group	6,803	5,769	
Lahnda or Wertern Punjabi	4,603	3,963	Punjab, Bombay & N.W.F.P.
Sindhi	2,200	1,807	

	Males	Females	Where chiefly spoken
Southern Group	1,817	10,544	
Marathi	10,573	10,317	Bombay, M. P. & Hyd.
Eastern Group	46,059	46,530	
Oriya	5,485	5,709	Bihar, Orisa & Madras
Bihari	14,015	13,912	Bihar, Orisa & Rajasthan
Bengali	27,577	25,952	Bengal & Assam
Assamese	1,042	957	Assam
Mediate Group (Eastern Hindi)	4,210	2,657	M. P. & Berar
Centrl Group	60,652	53,905	
Western Hindi	37,743	33,804	U. P., Punjab, Rajasthan, Hyderabad and Gwalior
Rajasthani	7,271	6,627	Rajasthan Gwalior, M. P.
Gujrati	5,616	5,240	Bombay, Baroda, Gujrat
Punjabi	8,799	7,040	Punjab, Jammu and Kashmir
Bhili	1,110	1,076	Bombay and Rajasthan
Pahari Group	1,472	1,280	
Central Pahari	6	1	U. P.
Eastern Pahari (Khas-Kura or Nepali)	251	162	Bengal, Assam & Sikkim
Western Pahari	1,211	1,115	Punjab, Jammu & Kashmir
Unclassed Languages	29	25	
Gipsy Languages	13	13	Bombay, Punjab & Jammu and Kashmir
Vernaculars of other Asiatic countries and Africa	196	105	

	Males	Females	Where chiefly spoken
Indo European Family	25	14	
Persian Group	23	12	
Persian	23	12	Bombay, Baluchistan & N.W.F. Provinces
Tibeto-Chinese Family	124	62	
Chinese Group	124	62	
Semitic Family	37	23	
Arabic	34	20	Bengal & Hyderabad
Hamitic Family	3	2	Bombay
Mongolian Family	8	4	
Japanese Group	3	1	Bombay & Burma
European Languages	208	131	
Indo-European Family	208	131	
Romance Group	9	6	
Portuguese	6	4	Bombay & Madras
Teutonic Group	193	125	
English	196	123	

CHAPTER IX

NORTH INDIAN TRIBES

Bhotiyas of Kumaon

Physical environment describes the life of the Bhotiyas of Kumaon. As is generally the case with the mountain dwellers, the cold climate, and rugged topography of Kumaon have moulded the Bhotiyas into brave, sturdy and hard working human beings. The hills and mountains have isolated them from the outside influences and in fact, isolation is the key note of their simplicity and comparatively lower standard of civilisation. Nature, *i.e.* physical environment of their habitat has not extended its kindness, (as in the case of the people of more favourable environment) to them. Even the facilities of agriculture-ample level land, good rain-fall and a long growing season-which have been the

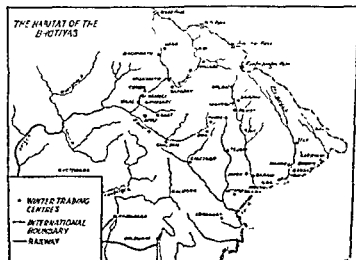


Fig. 31. The Habitat of the Bhotiyas

gateway of modern civilisation, are not available to them. Nature has been very greedy and it shrunk its gifty hands, while allotting its gifts to her sons. The only means through which these Bhotiyas make out their livelihood is the existence of some small and scattered pastures wherein their herd of goats and sheep dwell and which

feeds them, and smaller patches of level land, mainly confined to a few river valleys whereupon they do a bit of agriculture. (Fig. 32.)

The habitat of the Bhotiyas is confined to the northern mountainous regions of Kumaon, (now in Utterakhand Division), along Tholi river, above Badrinath; and between the valleys of Darma and Johar in Almora district (now in Pithoragarh distt.) Generally they choose to settle in the valleys of rivers which enable them to practise some agriculture, and through the passes made by these rivers, they carry on their local trade with the Tibetans in the far north.

Settlement follows the principal drainage lines, mainly in between 9,000 to 12,000 ft from the sea level, which is covered with snow from October to April—the magnitude of average snowfall being 6 to 10 ft. This is the period when they descend down the mountains with their cattle wealth and family into the river valleys. With the first snowfall in October, the Bhotiyas practise transhumance, taking their herds of goats and sheep down into the river valleys, where they sell the Tibetan wool and their local wool also, in exchange for some of their necessities, and sometimes even for cash. The wool they trade in is generally of rough variety and of two colours—black and white—the latter being superior to the former and fetches a higher price. The Bhotiyas remain in these lower regions upto April and during that period they mainly do trading activities in wool. Recently the Bhotiyas have begun trading in woollen articles such as woollen rugs, blankets and pankhis, which fetch more price than the raw wool. The Bhotiyas are very skilful in weaving and spinning. In spite of the fact that they do not possess modern weaving and spinning equipments, the hand-spun rugs, thulmas, dans, pankhis (which is the only art that a Bhotia son inherits from his father) are the main sources of their income. The Bhotiyas generally bring wool from Tibet in exchange with grain, salt and other necessities; but the recent political upheavals in Tibet and the Chinese intrusion into our border regions are providing a stumbling block in the smooth working of the trading activities between them and the Tibetans.

During the period when they descend down the mountains, they often go to Ramnagar, Haldwani, Kotdwara etc., to sell their woollen articles and buy their necessities cheaply. They generally leave their herds of goats and sheep at their winter camps, because in lower regions, they get enough and easy means of transportation, and while returning upwards the sheep and goats are used as beasts of burden, as the auto-vehicles are not available higher up in the hills. In this way, the sheep and goats of the Bhotiyas perform manifold functions—providing raw wool for the manufacture of woollen articles, as well as carrying the

articles which they bring in from the lower places in exchange for their wool. The raw wool of these Bhotiyas find a ready market in the towns situated in the lower regions for example the wool brought by them from Darma, Johar and Dharchula finds a ready market in Almora town where the wool is refined and made into fine rugs, blankets etc. by modern mechanical devices. The Government sponsored Industrial Training Institute in Almora and Malari buys all the raw wool from Bhotiyas and it is unique institute of its kind in the whole of Kumaon in that it gives a stimulus to the woollen trade of these poor Bhotiyas as well as fulfils the needs of the people of Kumaon.

When it becomes warmer in the lower regions, Bhotiyas ascend the hills, carrying with them the articles, which they have brought and place them in their summer residence. In this way they descend and ascend in a year in the following way :—

April-May	... First upward trip of traders, with goats and sheep.
May-June	... Traders's second trip.
Mid June	... Families with jibus; mules etc.
End of June	... Scheduled Caste Bhotiyas or Lohars and Beggars.
Mid-September	... Beggars' first downward trip.
End of Sept	... First downward trip with goat and sheep.
October	... Second downward trip of traders.
November	... Families descend.
End of Nov.	... Lohars and Doms.

During April and May, when they ascend, leaving their winter camps, they generally begun moving early in the morning at about 4 A.M. and move upto 9 A. M. After that they stay there and leave their herds of sheep and goats in the neighbouring small and scattered pastures; the women folk go to collect fuels in the adjacent wooded areas, and all of them return back at their camps by the approach of evening. Those not having lanterns or petromaxes, lit fire in open area throughout the night and take rest around the fire. They also let loose their fierce dogs at night to guard the cattle herds and the property which they possess against wild animals and thieves. Generally Bhotiyas encamp in open areas, and those lacking the tents spend the nights under hillocks or caves. This process goes on till they reach their summer camps. The table given below shows their summer and winter residences.

<i>Summer residence</i>	<i>Distt.</i>	<i>Winter residence</i>
Mailam	Pithoragarh	Tejam, Bhainskot, Timtia, Bhainsakhal, Bhanarkot, Kwiti, Tithbager, Kanoli Dhanyar.
Pachu	"	Sungarhi, Dhura, Baragar.
Ganghar	"	Thal
Bilji	"	Dwoti, Musaria, Chaunsala.
Burfu	"	Kolia, Basora, Mawani, Bhakunda, Banori, Thalor.
Mapa	"	Polia.
Lwan	"	Bhanarigaon
Martoli	"	Balk, Bhanarigaon, Amthal, Debibagar.
Tola	"	Bhainskoti, Gular, Gagarpani Pharsoli, Choribagar.
Khenlanch	"	Baraun.
Relkot	"	Baikuri, Kirai, Saling.
Lapsa	"	Khani, Pokhari, Lumti.
Go	"	Garbagar
Kuti	"	Dharchula.
Garbiyang	"	Dharchula, and Lohoghat
Niti	Chamoli	Kodia, Bhimtala
Gamsali	"	Boya, Chamali
Bampa	"	Chinka, Math
Farkyagano	"	Bijar, Thirpak
Radyabagar	"	Karnprayag, Badgaow
Margaow	"	Sabana, Joshimath
Kurkuti	"	Bazad, Kyuad, Birhi
Malari	"	Dewalpur, Balkhula, Thirpak, Thiffna, Pang, Murna, Chandpur, Vatoli, Ghat, Langaru, Bizar, Lansi
Kosa	"	Mangroli, Pudsari, Thiffna, Kaldbagar
Dunagiri	"	Mathana, Pudsari
Jhelam	"	Didoli, Bagmunda, Nigol, Tambsod, Birhi, Ringsal.
Nong	"	Nong, Hat.
Fakti	"	Fakti
Tolma	"	Tolma
Sukhi	"	Sukhi
Latha	"	Latha
Vaelgaon	"	Vaelgaon
Mana	"	Ghat, Joshimath, Pandukeshar Chadkula, Pipalkoti, Gingran,

		Santuna, Dewalpur, Nowyagard, Sirokhuma, Gopesh, Nigol.
Indradhara	Chamoli	Gopesh, Sirokhuma, Santuna Dewaldhar, Chadkula, Pandukesh.
Gajkoti	"	Dewaldhar, Gopesh, Santuna,
Oath	"	Gopesh, Dewaldhar, Santuna.
Lambagar	"	Pandukesh.

Reaching their summer camps, which generally lie in some river valley, Bhotiyas practise some agriculture, and sow some wheat, barley, and a local grain known as China. The sowing of these crops starts here at the time when wheat is harvested in other parts of India. The growing season is short for 4 to 5 months. At times when a slight temperature decrease occurs, snowfall is frequent which is generally followed by frost. In fact the frost-free period is too short and ranges between 3 to 4 months. As a consequence of this, therefore, the wheat grain becomes thin and does not contain proteins and other nutrient. The growing season and the frost-free period shortens with the increase of elevation. This meagre agriculture is done only in the river valleys, where soil is somewhat fertile, brought by the snow-fed small streams and rivers; other parts, specially in higher altitudes are barren, totally devoid of soil and the topography consists only of bare rocks.

The barter of goods and wool between Bhotiyas and Tibetans usually takes place in the month of September. Tibetan wool is more finer and superior in quality than their own which they shear from their sheep and goats. The goods which they give in exchange of wools to the Tibetans usually consist of rough cloths, gur, sugar, tobacco, and barley etc. Bhotiyas are, as a matter of fact pastoral nomads. As the herds of sheep and goats are their main property and means of eking out their livelihood, they do not have any fixed dwelling. When the grass, (which is coarse and small) of one pasture-land exhausts they move to other pastures, taking with them their tents, generally made of the skins of goats and mules, utensils herds of cattle and all and sundry. Such pastures in Kumaon are found at the heights of 8,000 to 11,000 ft from the sea-level. These pastures are not like those of pampas and prairies in dimensions, rather they are smaller and scattered and the grass is short which can only be chewed by the sheep and goats. Like his Lepcha brother, the Kumaon Bhotiya, "scans the whole countryside for good pastures, drives his flocks for days through little known

lofty valleys, and only returns when his supply of food is exhausted or there is herbage once more upon the over-grazed range near his habitation. He is a great traveller, and in consequence knows the mountain ways, intimately. It is a constant marvel to see to what altitude the Bhotia climbs, and what out of the way places he reaches. Amidst the black slopes in some high valleys there is a widely scattered flock of sheep and goats, and a solitary Bhotiya youth is seen whistling and chuckling to his vagrant flock and industriously spinning wool as he trots along."

This pastoral nomadism gives them enough leisure, and unlike the pastoral nomads in other parts of the world these Bhotias make proper use of their leisure. In their leisure time they make different varieties of blankets and pankhies, which though coarse and unrefined, are cheap enough, and can easily be bought by the poor mountain dwellers.

The anthropological traits of these Bhotiyas are that of Mongolian type, with a flat nose, hairs on their heads, a typical Mongolian eye-fold, short to medium stature, and brownish-yellow skin colour. The hair growth on their bodies is very scant. They might have inherited these physical and racial features from Tibetans in the far north, through inter-marriage. May be that these people are offsprings of the Tibetans who might have settled in sub-Himalayan regions. Their social practices and cultures are an inter-mixture of Tibetans and Hindus dwelling in the Himalayan sub-regions. During a few festive occasion, such as marriage, they usually drink the local-made wine and eat the meat of their goats, which are butchered on such important occasions only. In Darma, however, the women retain a dress fashion after that of the Hunias. According to Traill, "This consists of a web of cloth folded round the body, and descending from the waist to the ankles in the form of a petticoat, at the waist it is secured by a girdle, commonly of leather; above this is a shift without sleeves, reaching below the knee, while above all is a narrow hood fixed on the top of the head and covering all but the face, showing a tail descending down the back nearly to the heels, a pair of boots, similar to those of the men, completes the equipments. The above articles of dress are all made from woollen stuff, dyed either red or dark blue having narrow white strips." The women do not observe secrecy or parda, as they have to go shoulder-to-shoulder with their husbands in every walk of life. Polygamy is not allowed, excepting in some exceptional cases. Monogamy is the rule of marriage. Widow remarriage is forbidden, but the widow holds full rights over the property of her deceased husband.

Two sub-castes of Bhotiyas are found amongst Bhotiyas residing in Clamoli distr. viz. *Martles* and *Telches* who strictly

inter-marry amongst themselves and accept the daughters of the neighbouring hillmen who are not Bhotiyas, although the latter will not take the daughters of these Bhotiyas in marriage, and alliance is considered one of patronage. Outside Garhwal, Marchas and Tolchas are to be found in Johar of Pithoragarh district. Here Lolchas and Marchas marry among themselves, and Marches freely inter-marry with the Sokpas, otherwise known as Rawats of Johar. Tolchas go so far as to give their daughters to the Rawats, but refuse to take the daughter of Rawats for themselves, as they consider themselves as superior. The Niti valley is inhabited by Marchas and Tolchas, and the Mana valley of Chamoli by Marchas only. Malari village in Chamoli district is the lowest village in which any Marchas are to be found. Below it and up the Rini valley the inhabitants are all Tolchas.

The Bhotiyas of Utrakhand are earnestly striving to follow all the ordinances of the Hindu religion and invariably speak of themselves as Hindu in fact, so far has their progress gone that some authorities have classified them as Hindus. The following are some of the ceremonies to be found "among the partially Hinduized" Bhotiyas. Birth—on the fifth day after child birth "Pancholi" is performed, the woman and child being allowed to occupy a separate room or house but no one is permitted to touch them. Should anyone by accident touch them, the only purification is by sprinkling Cows' urine on the body and tasting the urine.

On the eleventh day, "Namkaran" or name giving, called Mushi in Johar, takes place. On this day Brahmins purify the women and the child and they may then enter the house and touch water. A horoscope is prepared according to the rules of astrology or "Jyotish Shashtra." When the first two or three children in a family have died young the right nostril of the new-born is pierced, or the child is given to a "Fakir", who shortly after returns it. When the first born has survived but others have died in early youth, a large piece of "Gar" or sugar is broken upon the back of the first born, so that the newly born infant may start its young life with the bad luck of the past broken. In regard to marriage, the ordinary Hindu customs are followed. Some person often the family priest, is sent in search of a bride. "Mangni" takes place between the ages of nine and twenty years; and after the mangni or asking, usually six months elapse before the formal marriage (Shadi). The "Gona" or consummation takes place at the age of maturity. In all marriage arrangements the girl is never consulted, the parents on both sides usually make all their plans, absolutely regardless of the children concerned. Marriage is (I) by Kanyadan the girl being given without a price. (II) by "Adala-badala" or exchange, a man giving his own daughter and taking for his son, or her brother, the other man's daughter.

Brahmans perform the ceremony according to the "Shastras". An altar (Vedi) is made and fire placed on the top, and at the four corners are little trees, and all round the altar are pine trees. The bride and bridegroom take seven turns round the fire and the altar, this being the binding part of the ceremony. The bride puts her foot on a "sil" or stone used for grinding, and as she goes round pretends to slip and is caught by the bridegroom each time, in this way signifying that in future all lovers will be ground to powder.

The summer residences of Bhotias are made of stones and they are comparatively more comfortable than the winter residences which are generally made up of grass and thatched roofs. The summer residence of Bhotias consists of four or five rooms, and a kitchen. The winter residences of some of the rich Bhotias are made up of stones; the windows are not made out due to the severity of cold. Every summer house of a Bhotiya is surrounded by a small kitchen-garden, wherein he grows the vegetable for his family use and also millets, the doors of these houses measure 5×3 and the windows (which are made out only in summer houses) 6×16". In fact the real residence of these Bhotiyas are the summer houses wherein some of their cattle dwell and where they do a bit of agriculture.

Nevertheless they have to descend down the mountains with the coming of winters, because the grasslands in higher altitudes, become covered with snow and they descend down with their cattle wealth in search of pastures. A bit of agriculture which they practise in higher altitudes is not sufficient for their maintenance for the whole year. These factors compel them to come down to their winter camps with their all and sundry, where in addition to a bit of agriculture, they carry on some trading activities in wool and woollen articles with the local peoples and thus eke out their extra income.

THE THARUS

The habitat of the Tharus extends from the Tarai regions of Uttar Pradesh, bordering Nepal and right from Gorakhpur to Naini Tal district. In Naini Tal district they live mainly in Kichha, Khatima, Rampura, Sitarganj, Nanakmatta, Banbasa etc. They do not fear the malarial climate of Tarai and Bhabar. Really speaking the credit goes to them of settling in these unhealthy regions.

The origin of the word "Tharu" is unknown but Mr. Nesfield offers the following hypothesis regarding the origin of word "Tharu". According to Nesfield,¹ "The Tharus are remarkable for their indolence, aversion to service, and incapacity for sus-

1. Nesfield, J. C., *Calcutta Review*, XXX-1,

tained field labour, and they have never been in the position of serf to any landlord. Had this been the case, they would have sunk long ago into the ranks long of Arakhs, Pasis, Chamars, Koris, and other Hindu castes of the lowest rank, who serve as field labourers or bond-slaves to landlords in the open plain, and have lost the free life of the forest which Tharus still enjoy". Mr. Knowles¹ says that it comes from a verb used by hillmen "tharna"—to paddle about, and hence Tharu means a paddler. By another account "thar" means wine, and the name Tharu or Wine Bibber, was given them by one of the Kshatriya Rajas of the plains, who, when he invaded the hill country, was amazed at their drunken habits. Another etymology, says Mr. Nesfield, suggested is from "Thar", which, in the colloquial language of books, signifies, "fores" to a name which correctly describes the status of the tribe. On the whole; however, it is safe not to search for any Hindi etymology, but to consider the name as sprung from the language of the tribe itself, which is now for the most part obsolete. An aboriginal name underived from any Sanskrit or neo-Sanskrit source is the fit appellative of an aboriginal casteless and un-Brahmanized tribe whose customs have been slightly modified by contact with those of the Aryan invader.

The Tharus assert a Rajput origin. The early history of the Tharus is mainly based on oral traditions. During the Mongol invasions when Rajputs were defeated, their wives fled from Chittor with their domestic servants and settled in the remote regions of Tarai, gradually moving to other areas. Later on, the mistresses had to marry with their servants. Still the males amongst the Tharus are considered inferior to the females. This could have been done to the latter belonging to the superior matters of a governing dynasty. Regarding the Chittor story, Mr. Nesfield says², "Some Tharus know nothing about this tradition and those who do are not able to tell you whether it was the sack by Alaudin (A. D. 1303), or that by Bahadur Shah (A.D. 1533), or that by Akbar (A.D. 1567). The story is absurd on the face of it; not the slightest allusion to Tharus in connection with any of these events is made by the Muhammadan historians. The fiction of having come from Rajputana was invented by some of the clans merely to raise themselves in their own and their neighbour's estimation. There is scarcely a hunting tribe or caste in Upper India which has not set up a similar claim."

He quotes another legend which centres round Raksha or Rikheswar, their patron saint or founder. "Both names are evi-

1. Knowles Jour. A.S. Beng. 1847, p. 430.

2. Nesfield, 31.

dently corruptions of some obsolete Tharu word which has been toned down to suit the Hindi accent. According to the legend in vogue among the Tharus of Kheri, this deified founder was a son of the renowned aboriginal King, Raja Bhu or Vena, whose name is still known in many of the oldest cities of Upper India and Bihar as one who held the rank and title of Chakravarti or Universal Emperor in the olden time. In Manu's institutes he is stigmatised as the king who allowed a man to marry the wife of his deceased brother. According to Manu he died from the effects of his unbridled lusts. According to the Vishnu Purana, he was beaten to death by a gang of saintly men armed with blades of holy grass, all of which had been consecrated with magic words. Barbans is still a title of several Dravidian tribes on the Vindhyan range. Rikheswar or Akasha was banished, it is said, from his father's court, and ordered, with his band of male followers, to seek for a new home in the north, from which they were never to return. Setting out on their wanderings, they took as their wives any women whom they could steal or capture on the road, and in this way the Tharu tribe was founded. It was not till they had reached the sub-himalayan forest, in which they still dwell, that they decided to rest and settle. The soul of Raksha is still believed to hover among the people of his tribe, just as in ancient days he led them safely through the wide wilderness into a new and distant settlement so in the present day he is said to be the guardian and guide of men travelling on a distant journey. No Tharu ever sets out from his village for such a purpose without first propitiating him with gifts and promising him a sumptuous feast of flesh, milk, and wine on his return. His presence is represented by a mound of mud, with a stone fixed in the middle, and he delights in seeing the blood of a live capon dashed against this stone and to feel its blood trickling down the side. One peculiarity of this God is that he is deaf, an emblem of his antiquity and hence vows and prayer are addressed to him in a stentorian tone of voice. The title Gurua, which is generally prefixed to his name implies that during his residence on earth he was famous as a wizard or medicine man, and acquired through this means the kingship or leadership of his tribe."

The "Tharus" have been divided into different groups on the basis of their geographical environment and varying degrees of their advancement. Broadly speaking, the Tharus may be divided into three groups.

(1) The tribes living in the Tarai regions of Kumaon.

(2) The second group consists of Tharus, occupying the borders of Nepal and extending upto Gorakhpur. They can best be described as the nomadic tribes.

(3) The third group of Tharus called Bokshas, constitute a very small number occupying both the banks of river Ramganga, and extending as far as south or Kotdwara-Hardwar forest road. Their habitat is known as Bokshar, which lies in between the Kalka valley and Kotdwara.

The anthropological traits of these Tharus are those of Mongolian type, with a flat nose oblique eyes, with a medium stature of the males. On the other hand women are short in stature, and their figures are remarkable rather for strength than beauty; limbs and lips are powerfully developed; legs are small with well-developed muscular-calf, solid breasts. Physically they are strong, muscular and well-built. The majority of the people are of medium stature with medium heads, but amongst some along the Tibetan frontiers the heads are round. They might have inherited these anthropological traits from Tibetans in the north through hybridization. According to Nesfield.¹ "Owing to the intermarriages which have taken place within the last two or three centuries between Tharu men and Nepalese women the physiognomy of the Tharu tribe has acquired in some instances, a slightly Mongolian caste, which shows itself chiefly, but not to a striking degree, in slanting eyes and high cheek bones. In other respects their physical characteristics are of the strictly Indian type. They have long, wavy hair, dark, almost black, complexion, and as much hair on the face and body as is usual with other natives of India. In stature build, and gait they are distinctly Indian and not Mongolian, nor have they any traditions which connect their origin with Nepal." Mr. Knowles² says, "some of the women are very fair, and are good looking both in face and figure; though they generally partake of the Mongolian style of features. They prove themselves genuine daughters of Eve by their love of finery. They love to adorn themselves with heavy silver armlets, bracelets, anklets, nose-rings and necklaces of beads and many coloured shells. They wear their long black hair, not tied up in a knot, but rolled into a long horn behind. A more frequent application of water would make their bright yellow skins look more fair and healthy. Their toe and finger nails are nearly all destroyed from being so constantly soaked in water during the rice-sowing season.

They are very happy and contented folk. They bestow great honour on their guests. The women think themselves superior to men and do not allow the latter to enter the kitchens.

1. *Op. Cit.*, 17.

2. *Op. Cit.*, 110.

Tharus keep their houses and courtyards very clean, although they themselves remain dirty. Their cowpens also remain clean. Every house consists of a recreation room in which their guests are entertained and accommodated on the marriages and other ceremonial occasions. They call their granary as "Kotiya". The utensils consist of copper as well as earthen vessels, brass plates and cups. They do not let anyone touch their vessels, and when it happens the polluted utensils are purified by throwing water and the earthen vessels are thrown away and the valuable brass utensils are cleaned.

Their clan is called "Kuro". The following are the main clans amongst the Tharus—

1. Barawayak, 2. Batha, 3. Rawat, 4. Brittya, 5. Mahataum and 6. Dahait.

Amongst them the Barawayak are supposed to be the superior, some of them also keep elephants and they settle their quarrels in panchayats.

Marriages amongst them usually take place at maturity, and it is divided into four stages—(1) Apana Paraya—wherein the marriage is settled and relationship is established. (2) Bat Kahi, is the second stage. It takes place some twenty days earlier than the marriage. At this stage the accurate date of the marriage is fixed. (3) Marriage, usually takes place in the months of January and February on Saturdays, or Tuesday. They do not perform any religious ceremony, but simply a lamp is placed on the earthen vessels and both the bride and the bridegroom have to make seven rounds of it, as amongst the Hindus. These rounds are called "Bhawaras." The bride goes to her husband's house only for a day and returns to her father's house afterwards. (4) The last stage, called "Challa" is done, after three months of the marriage and the bride goes to her husband's house for ever.

In regard to marriage, Mr. Nesfield says that until the nuptial ceremony has been completed, and the woman has become the recognised property of some individual man she is regarded as the common property of the clan and is treated accordingly; till then there is no restriction of intercourse. Even when the marriage knot has been tied, it is not very difficult to get it unloosed; for the contract is not binding for life, or invested with anything like a sacred character, as it is with the Hindus, and men can and do change their wives in a spirit of mutual accommodation. It should be added, however, that so long as the contract between the man and woman lasts, the latter is as chaste and faithful as any wife could be." They are honest and simple, but, they are very expert in pirating the women. They do not look upon it as bad. According to some one, "Wife capture

is secretly practised to some extent among the Tharus. They have been known to carry off girls by stealth from the Bhukša tribe coterminous with their own borders on the Sarda river, and from the Nepalese tribes living on the outer spurs of the Himalaya mountains; and this practice of getting wives from Nepal will explain the slightly Mongolian cast of face which has now become rather common, though not universal, among the Tharu tribe." On the Tharus of Eastern district of the Punjab Mr. Ibbetson writes, "The strict rule of tribal exogamy which still binds all classes, both Hindu and Musalman, excepting, however, the priests and traders, who observe only the prohibitions of the Sanskrit scriptures, especially the rule against marrying from neighbouring village, the formal nature of the wedding procession, which must be as far as possible mounted on horses and in which males only may take part, the preparatory oiling of the bridegroom the similar treatment of the bride being, perhaps, a later institution—all point to marriage by capture. So does the use of bloody hand at both villages. The marking of all the turnings from the village gate to the bride's house may be a survival of a very common intermediate stage, where the bridegroom visits the bride by stealth. The rule that the procession must not enter the village, but remain outside in a place allotted to them, the fight between the girls' and boys' parties at the door of the bride's house, the rule that the girl shall wear nothing belonging to herself, the hiding of the girl from the boys' people at the wedding ceremony—all point to marriage by capture."

They do not believe in Vedas etc. The dowry system is not practised amongst them, but the father gives something according to his financial capacity to his daughter in her marriage. The marriage festivities are celebrated with great pomp and show, and *drinking in excess of the locally made wine is the characteristic feature of the marriage celebration.* Tharu females are not governed by their male members. They enjoy a dominant position in the society, and the male members are looked upon by the females with an eye of inferiority, "the women", according to Majumdar, "are known to be even dominant and husbands may even rebel against their wives' aggressive behaviour... ..the property is owned both by men and women, and the latter spend their income without advice of their spouses. Women keep poultry, own it, they fish, make baskets, and sell the products of their labour. Tharu women are so dominant that their husbands have earned the epithet of being incorrigibly henpecked. This is taken by the neighbours of the Tharus as due to the proverbial magic and witchcraft of the Tharu women, and husbands of women in the plains who stray into the Tharu country, are

believed to be domesticated by Tharu women and transformed into their pet animals. The myth may be explained by the graceful and attractive features of Tharu women and their social and sexual licence."¹

Tharus practise settled type of agriculture. They also know the use of cow dung in the fields. They are great rice cultivators. During the slack season they go to the nearby forests in search of wild animals and birds. They also collect many kinds of roots and various trees which are utilised in the form of medicine. Some of them also know magic and they are looked upon reverently by others. The animals they possess are a pair of oxen, a cow, sometimes a buffalo and hens also. The automobile of the Tharu is the bullock-cart which every Tharu wants to possess.

Tharus residing between Nepal and Gorakhpur practise hunting. I think, they are hunters by taste, and farmers by necessity, yet, they are excellent cultivators of paddy. They resemble their namesakes of the Kumaon Tarai, and are, generally supposed to be fever proof, but the reason of their relative immunity lies mainly in their careful habits of living and their domestic arrangements, especially with regard to the water supply."² They generally reside in the river valleys, growing rice and catching fish from the rivers which has become a dominant item of their diet.

"Although Tharus operate mostly in no-man's land between the two borders they frequently hop across to have an occasional sling at the teeming game which few others care to shoot because of the most difficult terrain. Hides, skins, bones, horns and flesh of the animals shot by Tharus have a ready market both in Nepal and India. Money earned by this noble trade is usually invested in buying tobacco, salt, percussion caps for guns and flashlight cells."³

The third group of the tribes called Boksha have been divided into three groups. 1. The group in the east residing near Ramganga river, 2. the second group consists of the Bokshas living with the Tharus in the regions of Ramganga and Patlidoon, 3. The third group is that residing in the west. There are five settlements of Bokshas, in the vicinity of Kalka valley, mainly Jhandichor, Lutawat, Thari, Baria, Pattalsana. The whole area is known as Bokshar. According to Sir H. Elliot, "They claim to be Panwar Rajputs and assert that their chief, Udiyajit, was driven from house and home in a quarrel that he had with his

1. D. N. Majumdar, *Race and Culture of India*, pp. 242-243

2. Nevill, *District Gazetteer of U.P.* Vol. XXXI, p. 101.

3. *Hindustan Times Weekly*, 11th September, 1960

brother, Jagatdeo, the Raja of Dharanagar, and came to dwell with a few dependents at Banbasa on the Sarda. Udiyajit had not there been long before his aid was solicited by the Raja of Kumaon, whose territories required defence against some of the neighbouring powers. Success attended the efforts of the Panwar, and the gratitude of the Raja induced him to offer his defenders an asylum in his territories."⁴ The quotation seems quite out of place and senseless because the Banbasa have known affinity of any kind with the other tribal people immigrated from the plains. It is quite certain that they settled in Tarai region a pretty long time back. References of them settling in Tarai regions also occur in the historic Ain-i-Akbari, in which the Bokshas have been described as residing in paraganas of Rudrapur and Kilpuri.

They are very simple, but illiterate and lazy. The Bokshas like all other tribes are agriculturists and keep hogs and other cattle. The Bokshas are hunters and great travellers. On account of their hunting practice, they pitch their tents from one place to another. Sometimes they made a collection of wild fruits, roots and animals to avoid frequent wanderings. Gold is washed from Sona Nadi by the Bokshas. Women do not observe veils. They are very fond of animal flesh and more especially of fish. The marriage system is the same as that of Tharus.

According to Dr. Stewart, "The members of the tribe are of short stature and very sparse in habit, in both respects somewhat exceeding the ordinary Hindu peasant of the District from whom, however, they do not differ much in general build or in complexion. The eyes are small, the opening of the eye lids being narrow, linear and horizontal (the inner angle not inclining downwards so far as observed), the face is very broad across the cheek bones, and the nose is depressed, thus increasing the general flatness of the face, the jaw is prognathous and the lower lip thick and the moustache and beard are very scanty."⁵ They bear a good moral character, are inoffensive and peaceable, as well as intensely ignorant and indolent. They have no arts and manufactures, and live on the chase and a scanty cultivation. They are particularly fond of wild pig, and this may be one of the reasons why they change the site of their villages every two or three years. In some places they collect the wild jungle produce, but in no systematic way.

Mr. Colvin says that they are less intelligent than the Tharus. "To this day neither the Bhokshas nor the Tharus build even earthen walls for their houses, which are made of posts driven into the ground with beams resting upon them. They employ hill or plainsmen as blacksmiths; all which tends to prove that they never

4. Sir H. Elliot, quoted by Atkinson in his *Himalayan Districts*, Vol. II.

5. Stewart, *Jour. Asiatic Society of Bengal*, Vol. XXXIV, Pt. II, p. 130.

possessed knowledge sufficient to admit of their erecting the buildings or sinking of masonry wells, ruins of which still exist in the Tarai."

HUNIAS

The tribes residing within the higher Himalayas are called Hunias. In the Tibetan local language they are called Buddha, meaning thereby the country of the Buddhists. Mr. Moorcroft, who visited Tibet in 1812, described its origin from the term "Undesh" of the wool country. The name of Huniyas is a corruption of Woondesh. Cosmas identified the "Hunnic" with the Turks and traces the settlement of the Huniyas to an early period, who lived in the country lying between China and on the borders of Persia and the Roman Empire. Historical records of De Guignes reveal that the so-called Huns became known in their fight with the Sassanides, which were conquered and finally absorbed by the "Tu-Khin" chief "Tu Men", who is supposed to be the founder of eastern Turks in the middle of the sixth century. According to Sir Percy Sikes the unification of China by the Chin Dynasty in the third century B. C., and the construction of the Great Wall providing strategic protection to China had its consequence upon the immigrants of Middle East and Europe, writes Sir Percy Sykes "In the second century B. C. the Hsuing-nu, better known as the Huns attacked and drove out the Yue-chi, and an Iranian tribe which inhabited the Kansu province and the southern part of the Gobi, thereby setting in motion a series of human avalanches." Continues Sykes, "The Yue-chi crossed the Gobi to Kucha, and in their turn drove the Sakae from Kashghar in 163 B. C. and settled in their place, the Sakae occupied Bactria, driving its Greek dynasty across the Hindukush. But, some 20 years later, the Huna again attacked the Yue-chi, who once more driving the Sakae in front of them, occupied Bactria. They then crossed the Hindukush and carved out an empire with Purushapura or Peshawar as their capital." "The origin of the name is very uncertain, but very close to and probably connected with Scythian race. In Macrindles, Ancient India, Pliny goes on to say that — "Beyond this river (the Oxus) are the people of Scythia. The Persians have called them by the general name of Sakae, which properly belongs to only the nearest nation of them. The more ancient writers give them the name of AramiiThe multitude of these Scythian nations is quite innumerable; in their life and habits they much resemble the people of Pathia. The tribes amongst them that are better known are the Sacae, the Massagetas, Dahae etc. Indeed upon no subject that I know of are there greater discrepancies amongst the writers from the circumstances, I suppose, of these

nations being so extremely numerous and of such migratory habits."

The Sakas have been an itinerant race. The Sakas originally resided, according to Pliny north of the river Oxus, but later on they had to migrate southwards from Central Asia. A great racial upheaval took place in Central Asia during 165-160 B. C. and the races started migrating in all directions. The Huns drove away the Yuechi racial tribe from its motherland in North-west China. The Yuechi had to migrate and ultimately they settled in Syr-barya region, where they had to encounter serious strifes with the Sakas, and the Yuechis turned victorious which resulted in the run off of the Sakas from their motherland in different directions and ultimately settled there. One branch of the Sakas migrated across Bukharo and settled there and the second branch occupied the Helmund valley and named it as Sakastan. The third of its branches after crossing the Oxus, settled north of Black Sea. About the Sakas of East Iran and Sakastan, the historians opined that consequent upon the severe press of Yue-chus, they attacked the kingdom of Bactria and Parthia. After evading the Greek rule of Bactria, the Sakas marched South-westwards, and conquered the kingdoms of Hirat and Siestan. But they could not remain there for long. The reason being the battle between the Sakas and the Parthians, in which the latter turned victorious and the Sakas had to leave Hirat and Seistan, and they migrated through Kandhar, and Baluchistan, crossing the Bolan passes and finally settled in the lower Indus regions which they named as Saka Deep. Making the Saka Deep as their headquarters, they went into different parts of India and settled there.

According to Curtius Scythians had their first invasion on India. Strabo writes that, "The Macedonians gave the name of Caucas to all the mountains which follow after Ariana, but amongst the barbarians, the heights and the northern parts of the Paropanisus were called Emoda and mount Imaus, and other names of this kind were assigned to each portion of this range. On the left hand opposite to these parts are situated the Scythians and nomadic nations occupying the whole of the northern side. Most of the Scythians beginning from the Caspian Sea, are called Dahae Scythiae, and those situated more to the east Massagetae and Sakae; the rest have the common appellation Scythians, but each separate tribe has its peculiar name. All or the greatest part of them are nomads. The best known tribes are those who deprived the Greeks of Baktriana, Asii, Pasiani (Asian?), Tochari, and Sakarauli, who came from the country on the other side of the Jaxartes opposite the Sakae and Sogdiani, and which country was also occupied by Sakae; some tribes of the Dahae are surnamed Aprni, some Xa-nthii, other Pissuri." The Chinese histo-

rical records T-seen-Han-shu and S hi-ki- say that they were the herdsmen, rearing sheep and goats and selling their wool who lived near the mountains of Tien-shan and Kashgar. They settled there in 130-140 B. C. In 160 BC the Chinese drove them towards the south. The famous archaeologist Cunningham (British) has described that Rajpal, the last king of Maurya dynasty, was defeated and killed by Sahaditya, the king of Kumaon. So it is evident that the Sakas ruled over Kumaon during unknown periods. Some ancient Saka tribes are said to exist in Johar and Darma, although some non Sakas have also intermingled with them resulting into a somewhat hybridised and mongrelised breed the Hunias. Whether or not they ruled over Kumaon during ancient period, but the ruins of Sakas are still found somewhere in Uttarakhand division, namely Bampa, Malari, Niti and Mana villages. Whatever be the original place of the Hunias it is definite that at present they mainly inhabit the area lying between the Indo Tibetan border. They were very excellent and terrible fighters. They are known as Lamas in Nepal and India and almost all of them are Buddhists.

The anthropological traits of these Hunias are those of Mongoloids, flat nose and faces, well developed epicanthic eyefold and long stature, cheek bones somewhat prominent, the forehead is broad, the skin colour is nearly brown; they are beardless, straight and tiny hair on the heads, both men and women have long hair. The Hunias, men as well as women, are fond of smoking and use a local made bamboo pipe. They have no written language but their dialect belongs to the Chinese-Tibetan stock. The Hunias are very simple but brave, rude but not savage, cheerful and honest, dull but not unpolite, kind and hospitable, poor but diligent, and primitives but not barbarous; they are great travellers by taste and nomads by nature, traders by necessity, yet, they are excellent craftsmen.

The marriage system amongst the Hunias has a peculiar feature in that the bridegroom goes to the bride's house and "stands opposite the door across the road and takes his headgear off to every soul that comes out of that house.. ...the girl is generally eight to ten years of age, sometimes older and the marriage ceremony takes place a few months after the formal asking. This is always attended by plentiful and liberal hospitality on all sides, but the actual wedding portion depends upon the payment of hard cash for the bride and the placing of the cobweb scarf of silk or cloth on the necks of all the bride's relations, and her own, and this custom is one of the chief expenses in the marriage." During some auspicious occasions, the Hunias both men and women, all those, who want to dance, dance in circular way, beating their

drums. The men perform the dance while their women offer them the local made liquor or jand which further stimulates them and gives them more vigour.

Their main occupation is the sheep and goat rearing and the woollen pattus are the characteristic manufactures of these Hunias. The Hunias, men women and children, generally wear the hand-made buskin, made of woollen cloths. Yaks, asses and mules are the beasts of burden, but in the bad years many of them descend to the lower elevation and practise begging.

THE KHASAS

The main areas of the concentration of the Khasas are Almora, Garhwal and the Jaunsar-Bawar area of the Chakrata sub-division of the Dehradun district. To the north and east of Jaunsar-Bawar lie Taroch and Tehri; to its south is the Dun valley; its eastern boundary is marked by the river Jamuna, and that of its west by Jubal and Sirmur. Jaunsar-Bawar lies between the Siwalik hills and the Himalayas and partly on the lower slopes of both. The climate being vigorous and healthy, the area has drawn to it tribes such as the Khasas, thereby proving its worthiness.

At the beginning of universe when the oldest religious scriptures such as Vedas etc. were not known, the archaeologists say that a brave and great race immigrated from the Caucasus mountains, which is supposed to be the birth-place of almost all the races, towards India and settled right from Khasgar up to Khasia hills of India. This great race is supposed to be the Khas. Mr. Atkinson's conclusion is that the Khasias were, like the Nagas, a very powerful race, who came at a very early period from that "officina gentium" Central Asia.¹ He also ascribes that during the regime of Asoka, the present Khasias were known as Yakshas, which later on, turned into Khas. The Greek Philosopher and traveller Ptolemy has described the oldest tribes as Cease which indicates towards the Khas tribe. Herodotus refers to the gold collectors who lived on the border of the city of Kaspatryas and

1. "We may connect with them Kissia mentioned by Herodotus as an old name of Susa, and Strabo also calls the people of Susa Kissai, whilst Diodorus and Quirrus Curtius mention the Kassai amongst the principal troops of Darius at Arbela. We may also connect with their name the Caucas of Pliny, and the Kassian mountains of Ptolemy, as well as his Kasia Regio. The Khasias were the principal inhabitants of the regions to the west of Kashmir, of Kashmir itself and of the hill country as far as Nepal and of a considerable part of the Punjab; and, though now possessing a national existence in Kurzon alone, can still be traced from the sources of the Kabul river to the Teesta by Dargeling." Quoted by Atkinson in *Himalayan Districts*, Vol. II.

the country of Paktyikas.¹ The Khasias, according to Charles A. Sherring, "are certainly Aryans and are closely connected with that branch of the great Aryan race which entered India in the Vedic times....."- The Khas tribe also occurs in Vedas, according to which it was a predominant tribe and king Sagar wanted to destroy this whole tribe, but it escaped by the efforts of sage Bashistha. According to Haribansa Puran, when Paras Ram determined to destroy all the Kshatriyas, the Khas living in the plains, ran away in the mountains and hills to seek shelter. When the Aryans arrived in India they drove the Khasias people from the plains to isolated hills and mountains of northern India. These people were originally the famous Rajputs, but circumstances did not allow them to practise strictly certain religious rites and so they began to be looked upon as inferior by some degree to Rajputs".

The Khasias of Garhwal and Kumaon resemble closely the Aryans in their physical features, tall stature, somewhat curly and long hair, sturdy body. Their religious rites and social practices are also the same as those of other Rajputs but in higher regions some points of Bhotias has also influenced them. On the other hand those living in Jaunsar-Bawar area of the Chakrata sub division of Dehra Dun district are tribal people, and according to Majumdar, "They should be distinguished from other tribal people in India who belong either to the Proto-Australoid or the Mongoloid racial stock. The Khasas even if they have been diluted in blood by mixture with the Mongoloids of the Upper Himalayas or with the Doms of the lower regions, belong to the Mediterranean stock, and some amongst them represent the true Mediterranean feature." The Khasas in Garhwal District reside especially in the Lohba and Khansar parties. The chief means of eking out their livelihood is agriculture; their subsidiary occupation being lumbering and sawing. The main crops of their fields consist of wheat, paddy, mandua, jhungora, (*optismenus frumentaceus*). Ploughing and sowing as a rule is done by men: weeding, reaping, threshing and winnowing is done by both sexes. When the wheat becomes ready for threshing, the common method is to spread out the sheaves thickly over a salty floor or on courtyard, and then to drive a number of oxen from one end to the other. The oxen are made to walk in a circular way independently of each other. This process makes the grain and the husk separated from each other then it is collected at one place and carried to the winnowing place. This is repeated three or four times, after which they are put into a big wooden

1. D. N. Majumdar, *Races and Cultures of India*, pp. 142.

2. Charles A. Sherring, *Western Tibet and British Borderland*, p. 60.

3. Majumdar, *Races and Cultures of India*, p. 143.

box, called Bhakar or Manchh. On the other hand, when Mandua and Jhungora become ready for threshing the heads are pulled off the stalks by hand, gathered into a long heap and beaten with flails, especially this process is done by children, whereas the winnowing process is done by women, throwing up the grain and chaff with ringal baskets, called *supra*. The grain falls down on heap, the husk is scattered by the wind.

Mandua and Jhungora are the staple food crops of Khasas, wheat is mostly a luxury. The mustard serves both as oil for lighting and houses and for rubbing on the bodies of the newly born babes, but women rub their bodies with the butter. As there is plenty of water, water-mills or ghats are in common use for grinding the grain. A small channel leads the water-mill from a local stream to the millstone. The ghat or the water-mill consists of a pair of stones of the shape of wheels, laid one upon the other, in such a way that the grain is ground by the upper rotating wheel, plus the resistance offered by the lower one which remain stationary.

The Khasas also produce a commercial crop which is called *hemp*, or hemp in addition to grain, according to Atkinson large quantities of hemp of the very best quality are grown, chiefly by the Bawilas, Khasas Rajputs who inhabit the northern and western parts of the Paragana Chandpur. During rains when the hemp plant becomes about four ft. in height, these people rub the leaves of these plants which produces a blackish thin layers on the palms which is later on made into small disc-like beads and according to local dialects it is called sulphar. It is a kind of intoxicant, which is smoked by these people with Tobacco. When plants of hemp grow to a height of 8 ft. then they are harvested and after letting them dry in the open sun, the sticks are dipped into water for about a week when their outer fibre becomes quite soft, and then pulled out of the sticks. After the preliminary cleaning these fibres are spun and woven into varieties of rough cloths for their use. The fibre, when spun, becomes very strong. It, thus provides the chief raw-material for making the bags, baskets and other sundry articles which are generally sold in the local fairs, fetching some cash to the sellers. The clothings made of these fibres are generally worn by both men and women. The ringals are woven into mats and baskets by the Khasas.

The Khasas generally marry at the age of 10 to 15. In the marriage the bride's father asks for money from the bride-groom's father. After that the marriage takes place. The amount so charged by the bride's father is generally from Rs. 800 - to 1800/-. The marriage is generally monogamous, but in the event of death of husband or wife, second

marriage is also performed. In the lower castes of Khasas, sometimes, a wife marries another person, leaving her living husband. In such cases the first husband of the woman marrying another person, charges some money from the latter, which is called, 'kara'. The children remain the rights of the wife, and, therefore, whenever a woman leaves her husband, and marries some one else, she also takes with her the children by her former husband. On the other hand, the Jansaries are Polyandrous. "The husbands must all be sons of the same mother or by the same set of husbands. The advantages of this system are locally said to lie in the fact that the land does not become sub divided and quarrels are prevented. When the eldest brother is at home he shares a bed with the wife, and in his absence the next elder brother takes his place, and so on. The other brothers have to take their opportunity of approaching the wife in the day time in the fields. A brother may take a separate wife and in such a case, may continue to enjoy a common wife as well, if the other brothers do not object. Or, he may separate and obtain his share of the family property, but if children have been born his share is reduced. It sometimes happens that a household has several wives in common. One case was reported in which the family consisted of eight brothers, six being sons of one mother, and two of another. The family first married three wives who were possessed in common, but subsequently one of them took another wife. Later the six full brothers appropriated the first three wives and the other two sons the new wife. There is no prohibition on the marriage at the same time of two sisters, though this is rare, and a specific reason was given in one case, viz. that the first wife bore only daughters." The Khasas residing in Jaunsar-Bawar are very hospitable. The most peculiar custom of their hospitality is the provision of their daughters or sisters to their distinguished guests at night. Although this custom has gained a sexual appeal, the main reason should have been to serve their guests with every kind of comforts, so that the guests may not feel unhomely. The chief ornaments worn by the women are the rings of nickel and silver. Finger rings of nickel or copper set with tourquoises are called "mundari".

The Khasas unlike other uncivilised tribes, practise sedentary agriculture. The people are illiterate, orthodox, and believe in witch doctors. The physical environment which surrounds them has made them sturdy and hard workers, but due to lack of education and resources, they generally remain very poor and eke out their livelihood with great difficulty.

On the other side, those living in Jaunsar Bawar area of Chakrata sub-division of Dehradun district, are laborious, and devote themselves to agriculture, but from the geological structure

of the land, and from the insecurity of property, regular husbandry is limited to comparatively few spots. Rugged topography affords naturally very little level ground, and that too only in small patches. The people are oppressed and poor and eke out their livelihood with great difficulty. When it becomes difficult for them to earn something from agriculture due to some natural calamities, they turn towards the forests, and it is they who provide the chief manual labour in sawing and lumbering. They are generally employed by forest contractors, and unlike others, doing skilled labour, they return to their villages taking with them the sundry articles of daily use such as salt, sugar, gur, coarse clothings and grains for their families.

THE RAJIS

The Rajis, residing at present in Askot in Kumaon hills, suppose themselves the original residents of Kumaon. They claim their arrival in Kumaon as the first, others followed after them. The Rajis of Askot are the descendants of the Kirats, who have settled in the forest or have been compelled to do so.

Mr. Atkinson writes that Kirats and Khasas came into India through the same route which was formerly trotted by the Aryans. In the first century B.C. the Kirats have been supposed to be residing in the valley of River Jamuna. It is also told that some time the Kirats were the rulers of Nepal. When Emperor Asoka went to Nepal for preaching the gospel of Buddhism, he found the Kirats as the ruling power. At present these Kirats reside between Nepal and Sikkim. They are of two classes the Rialimboos and the Limboos. The Rialimboos consider themselves the superior race and do not have any social dealing with the Limboos. They are not particular in their diet, and eat the flesh of the deer, buffalo and frog. They belong to the Mongoloid racial stock. They are short statured in physical features, flat face and nose and slight epicanthic eyefold. Similar aborigines are found also in Doti in Nepal, and these Askot men admit that they are all of the same race.

There is a very interesting story about the Rajis, according to which there lived two Rajput brothers at the time of creation of this universe. The elder brother was very fond of hunting, so he began to reside in the forest and for this reason the younger brother became the king, and told his elder brother to settle permanently in the forest as he was very fond of hunting. From that time the elder one settled permanently in the forest and began to call himself Raji.

Anthropologically, the Rajis resemble the Mongoloids. Their skin colour is brown or nearly black; elongated forehead, broad nose, sometimes depressed at the root, but not so as to make the

face appear flat. They have very little hair on the face, though beards are frequently seen growing. But they are always thin and sparse; moustache growth is very scanty, generally the moustaches grow in patches on both the ends of the upper lips. Their dialect belongs to the Tibeto Burman family. Both man and woman are inveterate smokers.

"Marriage must take place outside the family, and only when a young lady is of age, and has reached a mature stage. Child marriage is unknown and highly disapproved. The inclinations of the bride are not consulted, but, with naive simplicity, the only formality is the fixing of a date with her parents, and then she is fetched away by the bride-groom and his party.... . There is no ceremony of any kind whatever, except that her parents give the wedding breakfast, nor are even the services of the priests required."¹

The economy of the Rajis is mainly centred around primitive agriculture. During the slack season they utilise their time in hunting, fishing and gathering wild fruits and roots of the trees. Animal tending is a side occupation along agriculture. The animals, mainly buffalo and cows, which provide them with their food in the form of milk, ghee etc. and the goats are a source of wool, supplying them their clothing, bedding etc. They are the worshippers of Lord Shiva. They also worship Ganga river, and the ghosts known in local dialect as "Bhut-Pisach". They keep the women-folk in veils from the strangers of the nearby villages and towns. They hate theft and sexual corruption.

Now the Rajis of Askot have become somewhat cultured. They manufacture wooden utensils and also practise agriculture. The Rajis are "invisible traders." They mainly manufacture the wooden utensils, which they silently keep in the court-yards of the village houses at midnight. The villagers fill them up with grains and the next night the Rajis come and take away the grain in exchange of their wooden utensils. At present one of their chief industries is the making of crude vessels out of the wood of the Gentu tree (*Bochameria-rugulosa*); these they exchange in the villages bordering on the jungle for scraps cloth and grain. When they acquire any grain by barter in this way or by cultivation, they hide it away in caves or tie it up in leaves and hang it from the branches of trees. Meanwhile, they live on any roots and fruits they can secure and return to their grain stores only when pressed by extreme hunger. Some roots and fruits they hide away in caves for use in time of need. They are constantly on the move in search of jungle produce of various kinds; and it is only recently that they have begun to settle down and have

1. Charles A. Sherring, *Western Tibet and British Borderland*, p. 11.

taken to a crude form of cultivation in which they burn down scrub jungle and sow the seed in the ashes.

They call themselves Hindu by religion. They worship Devi in the month of October under a large tree with an offering of cooked food and animal sacrifice. When any one gets ill, they worship the gods, ghosts, and demons of the jungle, but they erect no temples in their honour, and make no pilgrimages. They appear to have no caste initiation ceremony, and no priests. Their religious duties are performed by the eldest male member of the family. The worship of Devi is performed publicly by day; but that of the ghosts and demons secretly by night. The special offering to Devi consists of goats, demons and ghosts are propitiated by the sacrifice of fowls. These offerings are made on the tops of hills or under some large trees. After the offering is made, the meat is consumed by the worshippers.

The chief festival of the Rajis is the "Kark Sankrant" On this festival they eat specially good food themselves and entertain their relations and friends. They believe that demons and ghosts inhabit the tops of mountains, rivers, wells, and wherever water accumulates. If after a visit to the jungle a person becomes ill, they attribute the attack to the wrath of the jungle demon it is then necessary to propitiate him with appropriate sacrifices. The fields are haunted by a special demon known as "Chhal" who is, as a rule, benignant. Though they keep no annual feasts in their honour, they live in excessive dread of the ghosts of their deceased relations. These ghosts are of two kinds; some are worshipped as the protectors of the household; and others because, if neglected, they bring disease and death.

They are not skilled in any special form of magic or witchcraft, but certain persons occasionally fall under the influence of a demon, and in a state of ecstasy pour out incoherent expressions, which are regarded as oracles. In such cases the family guardian demon is invoked to expel the malignant intruder, and he instructs them which form of worship or sacrifice should be used to bring about this result.

THE LEPCHAS

This tribe lives in Sikkim and Darjeeling and in adjacent parts of Bhutan. There are a number of primitive tribes of whom the Lepchas are most important. Besides the Lepchas, the following are the important tribes in Sikkim and Darjeeling: ¹

1. The Bhotia	15192
2. Khambu	18365
3. Murmi	7017
4. Yakka	142

1. *Census of India, 1931, Vol. I, p. 503.*

According to Hooker, "The Lepcha is the aboriginal inhabitant of Sikkim, and the prominent character in Darjeeling, where he undertakes all sorts of outdoor employment. The race to which he belongs is a very singular one; markedly Mongolian in features, and a good deal too by imitation in habit, still he differs from his Tibetan proto-type, though not so decidedly as from the Nepalis and Bhutanis, between whom he is hemmed into a narrow tract of mountain country, barely sixty miles in breadth."¹ The important characteristic feature of the people is that, once you win their hearts, they are ready to do anything for you and according to Hooker "a more interesting and attractive companion than the Lepcha I never lived with; cheerful, kind and patient with a master to whom he is attached." Hooker goes on to say that, "An attentive examination of the Lepcha in one respect entirely contradicts our pre-conceived notions of a mountaineer, as he is timid, peaceful and no brawler; qualities which are all the more remarkable from contrasting so strongly with those of his neighbours to the east and west; of whom the Gurkhas are brave and warlike to a proverb, and the Bhutanese quarrelsome, cowardly and cruel."²

Physically the Lepchas are Mongoloids, varying in skin colour—yellowish to red, matted black hair on the head. They are short in stature, rather broad in chest and muscular arms but hands are smaller and slender wrists. The lips are variable but on the average are of medium thickness, cheek-bones projected so as to make their face appear flat. The majority of the people have marked epicanthic eyefold, the growth of beards is scanty and little scattered moustaches. The lower limbs are powerfully developed, befitting genuine mountaineers. The feet are small and muscular calfs. The Lepchas are Patriarchal tribes and their clan is called pu-to. Inter-clan marriage is forbidden. "What or wheresoever might have been their original source, the Lepchas here appeared in the most simple, primitive state, living in the midst of the vast, wilds, magnificent forests, old as the hills themselves, and, as I think, I mention to you, each family residing by itself.....Thus they dwelt in pretty cottages, around which they cultivated their plot of ground. Continues Mainwaring, "Their religion was particularly simple; they believed in one Good spirit, and in innumerable evil spirits to the former they conceived their worship due, and to Him they offered their prayers and thanksgivings; the latter they considered prowled about, and haunted every spot, to them they attributed whatever sickness or misfortune befell, therefore deemed it requisite to propitiate them, which they did by offerings of rice, etc. The first fruits of the season

1. Hooker, *Himalayan Journals*, Vol. II, 1844.

2. *Ibid*, 1854 also in *Imperial Gazetteer*, Vol. XXII.

were always offered to the Good Spirit."¹ The most common form of marriage is the child marriage. Exceptionally the marriage is based on the mutual love of the boy and the girl. John Morris, writing of Lepchas states that polyandry prevails largely amongst them. According to him, "A distinction must, however, be drawn between marriage and sexual relations. For while it is usual for a Lepcha girl to be actually married to more than one man, it is common for her occasionally to sleep with all his younger brothers. The more important to note, however, is that she is not married to them, whereas in a true polyandrous society each of the men concerned is a legal husband, and takes his place as such at wedding ceremonies."² But this fraternal type of polyandry is not practised as there is no direct evidence to support this argument. They all are monogamous. But if the husband dies, his brother alone may take the widow and all the property and children. Both men and women wear silver and coral ear-rings and anklets. Both men and women keep long hair. The Lepcha women usually keep their hair in a divided plait, which they coil in a circle round the head.

The chief occupation of the Lepchas is pastoralism. They obtain their living by drawing directly upon milk and milk products and by exchanging the same with neighbouring people to get other necessities. The daily life of the Lepcha man is mainly devoted in the maintenance and care of their herds of goat and sheep, which provide them raw wool and meat. Weaving is a highly developed local art amongst the Lepchas. Weaving and spinning, as a rule, are the occupation of the women-folk.

Agriculture stands next in their occupations. The chief crops are the rice, millets and potatoes. The former two, *i. e.*, rice and millet are generally grown in a single field combinedly. While potato is sown in small fields in front of their houses, serving as a kitchen garden to them. The following table shows the rotation of crops in the fields throughout the year:—

Name of the month		Crop sown	Place where sown
February	...	Buckwheat	Lower Valleys
March	...	Dry Rice, millet, and Maize	Higher places.
April	...	Barley, Wheat, together with rice and millet	Uplands.
May		Maize and millet	Kitchen gardens
June		Weed dry rice	Mountain ,ter- races

1. MAJUMDAR, *A Grammar of the Rang (Lepcha) Language*, as it exists in the Darjeeling & Sikkim Hills

2. John Morris, *Living with the Lepchas*, pp. 225—226.

July	...	Cardamom and Buckwheat	...
August	..	Buckwheat and Cardamom	Higher hills Higher hills
September	...	Harvesting season for rice and cardamom	...
October	..	Barley and wheat	Lower plains
November	..	Harvesting season for Buckwheat and Cardamom	.

The growing season becomes shorter and shorter with the beginning of October, and only such crops as needed are sown and during the months of December and January the snowfall begins which prevents the sowing of any crop.

Hunting and fishing are the subsidiary occupations and substitute their food during the slack season or during such times when the crops fail and they have to eke out their miserable living through hunting and fishing. June and July are the most troubled months noted for frequent food shortage. The rainfall received by the Lepcha habitats is scanty resulting sometimes in complete crop failure and the dire consequences of famine surrounds them. The technique of cultivation is very old and orthodox. The use of cow-dung and other animals excreta as manure in the fields is also prevalent amongst the Lepcha farmers. But the method of applying manures is antedated. Before the coming of rains the dung manure is spread on the fields in heaps, but when the rains come all the manurial nutrients are washed away leaving behind only stalks of grass and other useless materials.

The type of cultivation practised by the Lepchas is mainly of subsistence type, and unlike some of the aboriginal tribes and the Lepchas are sedentary agriculturists, although they have to move from one place to the other in search of wild game during times of food scarcity.

The Limboos come next to Lepchas. The Limboos, according to Dr. Campbell, "Form a large portion of the inhabitants in the mountainous country lying between the Dud-Kosi and the Kanki rivers in Nepal, and are found in smaller numbers eastwards to the Mechi river which forms the boundary of Nepal and Sikkim. In still fewer numbers they exist within the Sikkim territory, as far east as the Tista river, beyond which they rarely settle. In Bhutan they are unknown except as strangers." Mr. Hodgson locates them between the Arun Kosi and the Mechi, the Singilela

ridge being their boundary on the east. The Limboos themselves claim to have held from time immemorial the Tamba Khola valley suggested that this valley may have been one of their early settlements.

According to Risley the Limboos are the oldest recorded population of the country between the Tamra Kosi and the Mechi and their flat features, slightly oblique eyes, yellow complexion, and beardlessness may perhaps afford grounds for believing them to be descendants of early Tibetan settlers in Nepal. They appear to have mixed little with the Hindus, but much with the Lepchas, who of late have migrated in large numbers from Sikkim to the West. Dr. Campbell compares the two tribes in the following words—"The Limbus a very little taller in stature than the Lepcha, somewhat less fleshy, and more wiry in the limbs, as fair in complexion, and as completely beardless. He is scarcely ever as ruddy as the Lepchas sometimes are; his eyes are, if anything, smaller and placed more to the front than the Lepchas, and his nose, although somewhat smaller, is rather higher in the bridge than that of the Lepcha. He wears his hair long, but does not "plait it into a tail, has no fancy for bead necklaces; wears a kukri" instead of the "ban" (the long straight knife used by the Lepchas), and wide trousers and a jacket or chapkan in preference to the robe and long jacket of Lepchas."

The Limboos are now divided into the following ten sub-tribes :

- | | |
|-------------|-------------------------|
| 1. Panthar | 6. Miakhola or Terothar |
| 2. Chhothar | 7. Charkhola |
| 3. Anthari | 8. Maikhola |
| 4. Yangorup | 9. Phedab or Bhiuphuta |
| 5. Chaibisa | 10. Tambrkhola. |

The Limboos are divided into ten endogamous sub tribes, each of which is again broken up into a number of exogamous septs. The names of the septs are extremely curious. The internal structure of the tribe is extremely complicated, and can best be studied in the classification, which is shown in a tabular form:

Septs

Anglah	Nagen
Anlabang	Nermah
Baidohang	Nogo
Bakhim	Palu
Chempajong	Parkhari
Changbang	Patalong

Hampha	Pekha
Hukpha	Petunghah
Ichommah	Phalechhuah
Ikteh	Pheyak
Ilamhang	Ponthak
Imsong	Samwah
Ithinku	Sangbah
Kambahang	Sanjokmah
Kambang	Satling
Kephuk	Seduah
Khamthak	Sekwahdeng
Khotaipong	Sene
Khuadang	Singjangluk
Kumbahong	Singjuk
Laktomahang	Sukhong
Lingdenbeh	Sukwabah
Lunglamphen	Taijaung
Lugumah	Tilding
Mangoyak	Tongbangboha
Mangyong	Tumkohong
Muromah	Yongyah

The Limboos are a very superstitious race. Himariya the God of the forest, is propitiated on Sundays by offerings of sheep, goats, fowls, pigeons, and corn. A stone under a tree by the roadside is smeared with vermilion and bound with thread, and this place of sacrifice is marked by consecrated rags tied to a bamboo pole.

Their principal occupations at the present day are agriculture, grazing, and petty trade. But at present, hundreds of young Limboo lads are recruited into the armed forces, on account of their strong physical build.

CHAPTER X

THE TRIBES OF SOUTHERN INDIA

From the point of view of racial mixture in Indian sub-continent the northern part of it has remained a melting pot of various racial elements. All the foreign immigrations and invasions had been confined to northern India, resulting in a wide hybridization and racial mixture amongst the aboriginal tribes and the foreign elements. Moreover, the pressure of the invading foreigners made the original residents of northern India to give way and consequently they had to shift into the comparatively inaccessible regions of Southern India, with its rugged topography and wild forests. Till recently when the means of transport and communication were not so much developed, the tribes residing in the inaccessible and remote parts of the south had been able to retain, to some extent, their racial entity and cultural patterns. Even today, the most of the aboriginal tribes

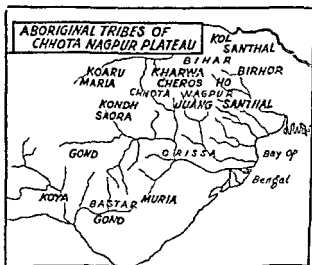


Fig. 33

of India are confined to the hills and forests of the south retaining their primitive culture. The important tribes belonging to this

region, are the Bhils, Gonds, Juangs, Todas, Kadars, Chenchus, Cheetees, Urahis etc.

The origin of the word Bhil is entirely unknown; but Col. Tod offers the following hypothesis regarding the origin of the word Bhil. According to him the word Bhil, however, has been supposed to have been derived from the Dravidian word "Billu", meaning thereby bow. Col. Tod also states that the earliest people of Marwar were Bhils; and Hamilton mentions that the Bhils were especially strong south of Malwa. Contrary to this according to C. S. Vankatacher, the Bhils acquired their tribal nomenclature as, "there is no doubt they represent a race which inhabited India, earlier than the Aryans and the Dravidians. Very possibly they are the proto-mediterranean race who spread far and wide when a climatic crisis occurred in the grass steppes of Sahara and it is the race which is responsible for the industry associated with the final Caspian culture in the Vindhya." Vankatacher goes on to say that the Bhils are one section of the great Munda race, which occupied the pre-Dravidian India and had for its home the central region across the Vindhya and it is perhaps in contact with the Dravidians found outside in Gujrat that they acquired their present appellation." Whatever be the origin of the Bhils, but at present they are mainly confined to Maunya Pradesh, Khandesh, Rajputana and some distts. of U.P. such as Etawa, Jhansi, etc.

The Bhils can be broadly divided into the following three categories, based partly on their physical habitats and partly on their anthropological traits.

1. The Bhils dwelling in the plains.
2. Those inhabiting the hilly regions.
3. The hybridised Bhils.

The hybridization probably took place with the Mohammadans. The first types of them are found in smaller numbers in almost all the villages of Central and Southern Khandesh. The second have their settlements in the Vindhya and Satpuras etc. The third miscegenation types are the Bhilals, found in the eastern Satpuras. Socio-cultural traits amongst the Bhils of plains and hills closely resemble each other, and these two tribes do not observe any sort of inferiority or superiority in social customs and marriages. But the third caste, *i.e.* the miscegenated one is looked upon by others with an eye of inferiority and contempt and no matrimonial relations between them take place. "The marriage ceremonies amongst the Bhilals comprise the agreement, the betrothal, and the wedding. The ceremony of the agreement consists of an interchange of visits by members of the bride's and bridegroom's family, during which the necessary liquor for the discussion of the preliminaries is drunk...the night is spent in drinking and dancing, and in the morning the bridegroom takes the bride to

his own house."¹ On the other hand the Bhil girls are married at full maturity. Marriage relation is not settled by the parents. It is settled with some other relatives. The marriage talks are started from the side of the bridegroom, which is marked by festive celebrations generally under the large tree of the village. This occasion is marked by songs sung by the women and the drinking of liquor by men. At the end of the celebrations the participants are given some sweets or especially *gor* by the bridegroom's father. The marriage date is fixed after six or seven months after the betrothal. The priest or Purohit occupies an important place in the marriage. The bride's father charges some money from that of the bridegroom's. Bhil marriage differs somewhat from those of Bhilols. The Bhilala women do not marry a second time, although the Bhil women may. If the husband dies his brother alone may take the widow and support her in every respect.

There are 41 septs, and as a rule each has its own tutelary deity. Some septs, however, have this tree as the object of their special worship. Septs with different names, but whose object of special worship is the same, cannot intermarry, e. g. the Kulbi sept cannot marry with the Kalamia sept. The names of the septs are as follows.—

1. *Avā* (called after a moth, *āvā*)—They never injure moths.
2. *Avāḥyā* or *Avyā*—This sept derives its name from a locality. Their tutelary deity called Nilai Mata is supposed to live in a bor tree (*Lizyphus jujuba*), which tree is therefore the object of their special worship, and they never injure it.
3. *Avayā*—Named after the *āvā* tree.
4. *Paḥr*—Tiger worshippers, "wagdeo", as they call him.
5. *Bagvai*—Worship the bor tree. Their women are not allowed to approach close to it.
6. *Bamūḥā*—They worship the tiger. This sept is considered of higher social standing than the others and will not take food from the rest.
7. *Bondar*—They worship a tutelary deity "Bondar Devi", probably a local goddess. She lives in the Sag tree (*Tectona grandis*) or Sal tree (*shorea robusta*) which are therefore revered by this tribe.
8. *Caṇṇama*—Claim descent from the Rajput tribe.
9. *Chaungat*—Worship snake as Nag-deo;
10. *Dauria*—Worship same as Dutia or worship of Bamboo.
11. *Dudwa*—Worship the agan tree.

1. W. W. Hunter, *Imperial Gazetteer of India*, Vol. II, p. 391

12. Dutia—Worship the Bamboo.
13. Gadari (Shepherd)—Worship the "Pipal."
14. Gaulia Chothamria—Named after a creeper called Gaola. They never touch it with the feet intentionally.
15. Ghat Baeria—Worshippers of Ghat Baeria Devi in Dondwara.
16. Iskia—Worship the bor tree.
17. Jamra—Worship the Kamun tree (*Eugenia jambolana*) which they respect.
18. Jamra—Worship Bamboo
19. Kahrli—No special totem known.
20. Khatia—Worshippers of a fish called Khatia, which they preserve.
21. Kuntia—Worship the stem (khut) of the Sag (*Tectona grandis*) tree, and never injure it.
22. K'akeria—Worship the Agan tree.
23. Kuldi or Kalamia—They worship the Kalami plant (*Convolvulus repens*).
24. Mooli—This sept worship a goddess whose shrine is on a hill called Ambapuri Pahar at Bhilwani (Rajpur, Barwani). Women may not worship at this shrine. No one is allowed to tatoo anything resembling the shape of a Kalya on the body.
25. Meheda—Worship the bahera (*Beleria Myrobolan*) tree.
26. Mori—Worshippers of the peacock. When they wish to worship it they go into the jungle and look for its tracks. They clean the ground near the foot-mark and spreading a piece of red cloth by it, put their offering of grain upon it. A woman on seeing a peacock must veil the face or look away.
27. Mivolda—Called after their goddess Miyai Mata, whose shrine is at Nisarpur.
28. Ningwal—Named from the local god Ningwal Deo, who is said to live under the *amli* (*Tamarindus Indica*). As usual, their women may not pray to these trees.
29. Nirgai—Worship the Nirgun shrub (*vitex negundo* or *trifolia*).
30. Pava:—Worshippers of the *Bor* tree and also reverence pigeons.
31. Piplia—Worship the pipal tree

The Bhils are very much violent and warlike. They also consume intoxicants, especially the local made liquor, which they extract from the mahua (*Bassia Latifolia*) trees. Among the fruit bearing trees the char and the tindu are important. Besides this there are several different varieties of thick shrubs and a number of luxurious creepers in the forest. Here the jungle folk find a number of edible roots, tubers, leafy vegetables. When they cannot get grain, they feed on wild roots and fruits, and in the remote places on the flesh of the wild bears and elephants.¹

The way of living, costumes and customs of the Bhils are very peculiar. Wherever they move, they do so with up-to-date outfit with their arms. The clothing of the Bhils consists mainly of a loin cloth of the men and a kind of petty-coat worn by the women. They also wear a kind of bodice which helps their breasts remain tight and erect. The lowland Bhils wear a turban, a coat and a waistcoat, their women, "a robe with or without bodice." Men and women wear brass or silver ear-rings. Ornaments of silver and brass are the beauty inspiring things worn by the women. The women have as a rule, their cheek tattooed with vertical lines; but sometimes the women tatoo their whole body with different crosses and dots.

Physically they are short in stature, with deep chocolate brown to copper-like colour, somewhat flat nose and thick everted lips. The majority of the tribes are dolichocephals. There is straight and dense hair-growth on the head and the colour of the hair is black. The important weapons of the Bhils are bow and the arrow. The Bhils dialects form a continuous chain between Rajasthani through Gujrati and Marathi; perhaps have been derived from Sanskrit which is supposed to be the mother of all present day languages of India. Besides this those inhabiting in Khandesh have such a dialect, "so affected by the influence of the neighbouring Bhili and Khandeshi that it is now a distinct dialect, with marked peculiarities of its own."² Grierson also includes the Hindustani of Kutch under western Hindi and Ayari or Ahiri under the Bhil language.³

THE SANTHALS

Santhal, a large Dravidian tribe, classed on linguistic grounds as Kolarian, which is found in western Bengal, northern Orissa, Bhagalpur and the Santhal Parganas. According to Mr Skreksrud the name Santhal is a corruption of Saontar, and was adopted by the tribe after their sojourn for several generations in the country about Saont in Midnapur. Before they went to Saont

1. W. W. Hunter, *Imperial Gazetteer of India*, Vol. II, p. 189.

2. A. Grierson, *Linguistic Survey of India*, Vol. IX, Part II, p. 3.

3. *Op. Cit.*, Vol. IX, Pt. III, p. 66.

they are said to have been called Kharwar, the root of which, Khar, is a variant of hor, man, the name which all Santhals use among themselves. As regards the derivation of the name of the tribe from Saont, an obscure village, somewhat off the main line of their recent migrations, it may be observed that Colonel Dalton suggested a doubt whether the name of the place may not have been taken from the tribe, and this view seems to derive some support from his discovery of small tribe of Saonts in Sargiya and Keonjhar.

The internal structure of the Santhal tribe is singularly complete and elaborate. There are twelve exogamous septs, 1. Hasdak, 2. Kisku, 3. Murmu, 4. Hembrom, 5. Marndi, 6. Saren, 7. Tudu, 8. Baske, 9. Besra, 10. Pauria, 11. Chore, 12. Bedea. Risley distinguished the internal structure of Santhals into following groups:—

Septs	Sub-septs	Septs	Sub-septs
Baski	Nij Sada	Hansda	Barwar Chilbindha Jihu
Bediya	Nil		Kerwar Manjni-khil Niaki-khil
Besra	Bundra Kahu Kara Nij Sada Sibala		Nij Roh-Lutur Sada
	Son Sung Nil	Marndi	Burn-Birit Kekra Laher Naiki-khil Nij
Chonre			Roht Sada
Hemron	Gua Dantela Jahur Kumar Laher Naika-khil Nij Roh-lutur Uh Abar		

Septs	Sub-septs	Septs	Sub-septs
Kisku	Ah	Murum	Bital
	Lachua		Boar
	Lat		Chopear
	Nag		Gaur
	Nij		Handi
	Roh-Lutur		Muro
	Sada		Nij
Tudu	Somal	Pauria	Sada
	Agaria		Sangda
	Chigi, Chiki		Sikiya
	Dantela		Tikka
	Lat	Saren	Nil
	Manjhi-khil		Barchi
	Naiki-khil		Hat
	Nij		Jogi
	Roh-Lutur		Lat
	Sada		Mal
	Sung		Mundu or Badar
			Nij
			Sankh
			Sidup or Siduk
			Turku

No Santhal may marry within his sept (paris), nor within any of the sub-septs (khunt) into which the sept is divided. He may marry into any other sept, including the sept to which his mother belonged. Girls are married as adults, mostly to men of their own choice. Sexual intercourse before marriage is tacitly recognised, being understood that if the girl becomes pregnant the young man is bound to marry her. Should he attempt to evade this obligation, he would be severely beaten by the Jag-Manjhi (headman of morals, and in addition to this his father would be required to pay a heavy fine. Polygamy is not favoured by the custom of the tribe. A man may take a second wife if first wife is barren, or if his elder brother dies he may marry the widow. But in either case the consent of his original wife must be obtained to the arrangement. Instances, no doubt, occur in which this rule is evaded, but they are looked upon with disfavour.

There seem to be indications that fraternal polyandry may at some time have existed among the Santhals. Even now, says

came out they were considered to be man and wife. A practice closely resembling this was found by Col. Dalton to be in vogue among the Birhors, and it is quite in keeping with what is known of the doings of primitive man in the matter of marriage.

The second mode of marriage "ghardi jawae", is resorted to when a girl is ugly or deformed and there is no prospect of her being asked in marriage in the ordinary way. "An instance has been reported to me in which girl who had on one foot more than the proper number of toes was married in this fashion. The husband is expected to live in his father-in-law's house and to serve him for five years. At the end of that time he gets a pair of bullocks, some rice and some agricultural implements, and is allowed to go about his business."

The third form, "itut", is adopted by pushing young men who are not quite sure whether the girl they fancy will accept them and take this means of compelling her to marry them. The man smears his fingers with vermilion or, failing that, with common earth, and, watching his opportunity at market or on any similar occasion, marks the girl he is in love with on the forehead and claims her as his wife. Having done this, he runs away at full speed to avoid the thrashing he may expect at the hands of her relations if he is caught on the spot. In any case the girl's people will go to his village and will obtain from the headman permission to kill and eat three offender's or his father's goats, and a double bride-price must be paid for the girl. The marriage, however, is legal, and if the girl still declines to live with the man, she must be divorced in full form and cannot again be married as a spinster. It is said that an *itut* marriage is often resorted to out of spite in order to subject the girl to the humiliation of being divorced.

The fourth form, "Nirbolok (*nir*, to run, and *bolok* to enter) may be described as the female variety of *itut*. A girl who cannot get the man she wants in the regular way takes a plot of "handia" or rice-beer, enters his house and insists upon staying there. Etiquette forbids that she should be expelled by main force, but the man's mother, naturally desires to have to get her out of the house. It is quite fair, for example and is usually found effective, to throw red pepper on the fire, so as to smoke the aspiring maiden out, but if she endures this ordeal without leaving the house, she is held to have won her husband and the family is bound to recognize her.

The fifth form "Sauya", is used for the marriage of widows and divorced women. The bride is brought to bridegroom's house attended by a small party of her own friends, and the binding proportion of the ritual consists in the bridegroom taking a

"dimbu" flower, making it with "sinJur" with his left hand, and with the same hand sticking it in the bride's back hair.

The sixth form, "Kiring Jawaë" is resorted to in the comparatively rare case when a girl has had a liason with and become pregnant by, a man of her sept whom she cannot marry. In order that scandal may be avoided, some one is procured to accept the post of husband, and in consideration of his services he gets two bullocks, a cow, and a quantity of paddy from the family of the man by whom the girl is pregnant. The headman then calls the villagers together, and in their presence declares the couple to be man and wife, and enjoins the girl to live with, and be faithful to, the husband that has been provided for her.

A widow may marry again. It is thought the right thing for her to marry her late husband's younger brother, if one survives him, and under no circumstances may she marry his elder brother. Divorce is allowed at the wish of either husband or wife. If neither party is in fault, the one who wants a divorce is expected to bear the expenses. The husband, for example, in such a case would not be entitled to claim a refund of the bride price originally paid, and would also have to pay a fine and give the women certain customary dues. If, on the other hand, it is the wife who demands a divorce without just cause, her father has to make good the bride-price in addition to a fine for her levity of behaviour. The divorce is effected in the presence of the assembled villagers by the husband tearing as under three sal (*shorea robusta*) leaves in token of separation, and upsetting a brass pot full of water.

In point of physical characteristics the santhals may be regarded as typical examples of the pure Dravidian stock. Their complexion varies from very dark brown to a peculiar, almost charcoal-like black, the proportions of the nose approach those of the Negro, the bridge being more depressed in relation to the orbits than is the case with Hindus; the mouth is large, the lips thick and projecting; the hair coarse, black, and occasionally curly, the zygomatic arches prominent, while the proportions of the skull, approaching the dolichocephalic type, conclusively refute the hypothesis of their Mongolian descent.

The main occupation of the Santhal is agriculture. Millet and maize are the staple food crops of the Santhals. Lumbering, fishing and hunting are the other sources of eking out their livelihood. The Santhals of the Chhota Nagpur plateau are comparatively civilized, and they practise some agriculture in northern Bengal. Besides this the Santhals are the tea garden coolies in Assam and collect the lac in Chhota Nagpur, and as industrial labourers in the jute mills of Bengal. Although they have had a

great deal of contact with outsiders, against whom they have often rebelled, they have retained to an unusual degree their social cohesion, their language and many of their customs. Some of them now are well educated and indistinguishable from other people, but the majority remain essentially tribesmen, of a singularly happy and carefree temperament.

The chief festival of the Santhals is the Sohrai or harvest festival, celebrated in Poush (November-December), after the chief rice crop of the year has been got in. Public sacrifices of fowls are offered by the priest in the sacred grove; pigs, goats and fowls are sacrificed by private families, and a general saturnalia of drunkenness and sexual licence prevails. According to Risley chastity is in abeyance for a time, and all unmarried persons may indulge in promiscuous intercourse. This license, however, does not extend to adultery, nor does it sanction intercourse between persons of the same sex, though even this offence, if committed during the Sohrai festival, is punished less severely than at other times. Next in importance is the "Baha Puja", kept in February-March when the Sal tree comes into flower. Tribal and family sacrifices are held, many victims are slain and eaten by worshippers, every one entertains his friends, dancing goes on day and night, and the best songs and flute music are performed. The Santhals are passionately fond of music and dancing.

THE KAMARS

The Kamars are mostly confined to the areas, such as Raipur district, Bindranawagarh, Suamar, and in the Nagri and Sihawara mountainous tract of the Dhampari Tahsil. They are found in smaller numbers in Kankar and Jaipur and adjoining parts of Bastar state now in Madhya Pradesh. The habitation of the Kamars lies roughly to the south of Chhattisgarh in the hilly tract, which includes the important hills such as Mulcowa, Ratti, Alang etc. Their origin is not definitely known, but according to Russell and Hira Lal they are definitely "Dravidian" in origin. Fixing the racial affiliation of Kamars is one of the difficult tasks, because no ethnological work has been done for the Kamars. According to Dr. S. C. Dube the Kamars are medium in stature, but exceptionally tall. Skin colour varies from brown to nearly dark, thick growth of straight and dark hair on the heads. The lips are very much everted and developed and moustache growth generally scanty. Their bodies are physically well built and well proportioned. Both the sexes have muscular calves. The women tattoo their bodies with various signs.

The Kamars are described as exogamous. Their clan is called "Got." There are numerous clans amongst them such as Jagat, Netam, also called Maitam, Markam, Sori-which is sub-

divided into two divisions, *112*. Bagh, and Nag sori. The other clans include such as Kunjam, Marai, Chedash. Referring to the Kamar marriage, Russell and Hira Lal write, "Marriage within the sept is prohibited, but is permitted between the children of brothers and sisters, or of two sisters." Marriages between the children of two sisters were wrongly reported by Russell and Hira Lal. Marriage must take place outside the family. The Kamars all marry at the matured age, a girl seldom marries before 15 and a man not before he is 18. Child marriage is also sometimes practised amongst them. Levirate and widow-marriage is also allowed. Further, referring to divorce, Russell and Hira Lal say, "The Kamars never divorce their wives, however loose their conduct may be, as they say that a lawful wife is above suspicion." But the right of divorce under certain conditions has been legally granted to husbands and wives in almost all the tribes. Polyandry is totally absent in them. Monogamy has been reported in Kamar communities by C. S. Dube. But if first wife turns sterile, it is customary for a Kamar to take his sister-in-law as his junior wife, if the second wife incidentally too does not bear a child the younger sister, if any, of the junior wife is taken by the husband as his wife. In case she too fails to bear a child or if she happens to give birth to a girl, contrary to the wish of her husband, the latter is allowed to marry the sister of his precedent wives if any. Such things are possible only when the wife of a Kamar happens to have many sisters, but it is not clear as to how or to whom the man marries a second time when his first wife does not have other sisters. It can be presumed under such circumstances that the husband can marry the daughter of her first wife's uncle, but situations may also exist when his wife's uncle too does not have daughters at all. Under such conditions the Kamar husband may have the option to marry some one outside his wife's family.

The main occupations of the Kamars are agriculture, hunting, fishing, food-gathering and basket making. Their usual occupation is lumbering and cattle rearing. The Kamars practise agriculture in a peculiar mode. They generally inflame a forest tract and cultivate it for six or seven years. This type of cultivation is known as Dahya and Bewar (called by Baiga tribes). According to W. V. Grigson the shifting cultivation is called "Dahya..... about two acres of Jamindari forests are cut, and the trees and forest growth are dragged to a field a quarter or a half mile away, there piled over about an acre of land and fired when dry. The ashes are dug into the soil with the pick-axes before sowing, either light rice, mandia or lodon. About 200 acres in all are filled annually, and the forest recuperates sufficiently to permit of a fresh cutting after from 7 to 10 years. The trouble over any

attempt to segregate the Kamars in and confine their Dahya to one area is the frequency with which they shift their settlements; but the frequency may at present be due at least partly to the knowledge that Dahya is illegal and best concealed by frequent flittings. The Raipur Divisional Forest Officer suggested that if a rotation of fourteen years was allowed for each clearing a reservation of 5000 acres would suffice. But this assumes that each clearing wood provides ashes enough to fertilise the fields for two years in succession. Kamars practice assumes that the ashes are enough for one year only and probably based on age-old experience. Moreover, forest cut for one year at a time recovers more rapidly than forests cut for successive years. The remedy would seem to be to permit Dahya in a three patwari circle mentioned to be prohibit the cutting of trees of prohibited species, fruit trees or trees above a certain girth and to require the leaving of a minimum unfelled forests. Dahya can well be carried out by cutting undergrowth and boughs only. It is worthwhile trying in this limited area to help the survival of this very interesting and wild tribe."¹

Geographically, the whole of it is with moderate winters and hot summers. This part receives most of the rains from summer monsoons, averaging between 40 to 60 inches. There are virgin forests. These forests in Kamar country, contain trees like sal, teak, tendu and mahua etc. The forests in Kamar country are of a character entirely different from the northern Indian forests. Broadly speaking, it may be said that on the lower grounds where the soil is suitable, sal is important species, and in the higher hills char predominates. The rainfall is very heavy in this region. It is densely covered with forests. The main occupations of the Kamars, therefore, are lumbering and sawing. The Gauragarh terraces contain dense grass growth, but they have been so badly damaged by frequent fires that the bunches are now badly destroyed, as a result of which the grasses do not resume life afresh and the area becomes barren.

The fire which is unrestricted proves very much destructive not only to the standing vegetation, but also to the future growth of the trees. Mr. C. F. Waterfall holds the following opinion about the unrestricted shifting agriculture practised amongst the Kamars, "It might be thought that the summit of the Gauragarh plateau which has good soil and a fairly copious water supply would be covered with virgin forests affording a vast timber reserve for the coming generations but this is not the case. It is true that there are some patches of sal and other timber but the better part of it is open campaign carpeted with coarse grass,

1. W. V. Grigson, *The Aboriginal Tribes in the C. P. and Berar*, p. 145.

and hens at one of the caves, and the goat at the other, were the only domestic animals which I saw.¹ Pigs are also very common. Besides this honey taking is also an important source of livelihood.

BHUMIJ

A non-Aryan tribe of Manbhum, Singhbhum and western Bengal, classed by Col. Dalton and others, mainly on linguistic grounds, as Kolarian. There can be no doubt that the Bhumij are closely allied to, if not identical with, the Mundas; but there is little to show that they ever had a distinct language of their own. In 1850 Hodgson published a short vocabulary prepared by Captain Haughton, then in political charge of Singhbhum, but most of the words in this appear to be merely Ho. The most recent observer, Herr Nottrott, of Gossing's Mission, says that the Bhumij resemble the Mundas most closely in speech and manners, but give no specimens of their language, and does not say whether it differs sufficiently from Mundari to be regarded as a separate dialect. According to Risley that the Bhumij are nothing more than a branch of the Mundas, who have spread to the eastward, mingled with the Hindus, and thus, for the most part severed their connexion with the parent tribe. This hypothesis seems on the whole to be borne out by the facts observable at the present day. The Bhumij of Western Manbhum are beyond doubt pure Mundas. They inhabit the tract of the country which lies on both sides of the Subarnarekha rivers bounded on the west by the edge of the Chhota Nagpur plateau, on the east by the hill range of which Ajodhya is the crowning peak, on the south by the Singhbhum hills, and on the north by the hills forming the boundary between Lohardaga, Hazaribagh, and Manbhum district. This region contains an enormous number of Mundri graveyards and may fairly be considered one of the very earliest settlements of the Munda race. The present inhabitants use the Mundari language, call themselves Mundas, or, as the name is usually pronounced in Mandhum Muras, and observe all the customs current among their brethren on the plateau of Chhota Nagpur proper.

The early history of the tribe and its general characteristics are sketched by Col. Dalton in the following passages: "The Bhumij of the jungle Mahals were once, under the nickname of Chuar (robbers), the terror of the surrounding districts and their various outbreaks were called Chuaris. On several occasions since they came under the British rule they have shown how readily a Chuari may be improvised on very slight provocation. I do not

1. John Ball, *Jungle Life in India*, p. 538.

know that on any occasion they rose, like the Mundas, simply to redress their own wrongs. It was sometimes in support of a turbulent chief ambitions of obtaining power to which, according to the courts of law, he was not entitled and it was sometimes to oppose the government in a policy which they did not approve though they may have had very little personal interest in the matter. Thus, in the year A. D. 1798, when the Panchet estate was sold for arrears of revenue they rose and violently disturbed the peace of the country till the sale was cancelled. After hostilities had continued for some time, in reply to a very pacific message sent to them by the officer commanding of the troops, they asked if the Government were going to sell any more estates. I do not think that the settlement of any one of the Bhumij Jungle Mahals was effected without a fight. In Dhalbhum the Raja resisted the interference of the British power, and the government set up a rival; but after various failures to establish his authority they set him aside and made terms with the rebel. In Barabhum there was at one time a disputed succession. The courts decided that the eldest brother of Raja Vivika Narayan, though the son of the second wife, should succeed in preference to the son of the first wife, the Pat Rani. The Bhumij did not approve of the decision, and it was found necessary to send a military force to carry it out. This was the origin of the last disturbance, known as Ganga Narayan's rebellion which broke out in 1832. Lakshman, the son of the Pat Rani alluded to above, continuing to oppose his brother, was arrested, and died in jail, leaving a son, Ganga Narayan on the death of Raja Raghunath Singh he also was succeeded by the son of his second Rani, who was declared by the supreme court to be heir, in opposition to claim against set up by Madhab Singh, the younger son, by the son of the Pat Rani, but failing in his suit, Madhab Singh resigned himself to his fate, and was consoled "diwan", or prime minister, to his brother. In this capacity he made himself thoroughly unpopular, more especially by becoming an usurious money-lender and extortionate grain-dealer, and soon Ganga Narayan found that, in opposing a man so detested, a majority of the people would side with him. Accordingly, in the month of April 1832 he, at the head of a large force of "ghatwalas" made an attack on Madhab Singh and slew him. This foul crime was committed with great deliberation, cunning, and cruelty. Madhab was seized and carried off to the hills to be sacrificed. Ganga Narayan himself first smote him with his battle-axe, then each "sardar Ghatwal" was compelled to discharge an arrow at him, and thus all the leading "Ghatwals" became implicated in the plot. A system of plundering was then commenced, which soon drew to his standard all the Chuars, that is, all the Bhumij of Barabhum and adjoining estates. He attacked Barabazar, where the Raja alived, burned

at its discontinuance, this shows it had no great hold on the minds of the people. Many of the Bhumij tribe are well off. Some of them, who are Sardar Ghatwals are in virtue of their office proprietors of estates, comprising each from one of twenty manors, but as most substantial tenants under them are also hereditary Ghatwals rendering service and paying besides but a very low fixed rent, these Ghatwari estates are not so valuable to the proprietor as villages on the ordinary tenure would be. The Bhumij live in commodious, well built houses, and have all about them the comfort to which the better class of cultivators in Bengal are accustomed. Those who live quite amongst the Bengalis have retained few of their ancient customs; none, perhaps, except the great national amusement, the gay meetings for dance and song both at their villages and at "jatras", which are characteristic of all Kols. In appearance they are inferior to the Hos Singhbhum and to the best of the Mundas of Chhota Nagpur. They are short in stature, but strongly built, and like the Santhals, rather inclined to fleshiness. In complexion they are variable, like the Mundas, ranging from a dark chocolate to a light brown colour; they observe many of the Hindu festivals, but retain their sacred groves in which they still sacrifice to the old gods. They have generally left off eating cow's flesh, in which their unreformed brethren in Singhbhum and Chhota Nagpur indulge, but eat fowls. The Bhumij have in a great degree lost the simplicity and truthfulness of character for which their cognates are generally distinguished. They have acquired from the Bengali Hindus the propensity to lie, but they have not the same assurance or power of invention, and their lies are so transparent that they are easily detected."

The internal structure of the Bhumij tribe is shown:—¹

Name of Sept.	Totem
Saltrisi	Sal, fish
Sansda	Wild-goose
Leng	Mush-room
Sandilya	A bird
Hemron	Betel palm
Tumarung	Pumpkin
Nag	Snake

The aboriginal usage of adult marriage still holds its ground among the Bhumij, though the wealthier members of the tribe prefer to marry their daughters as infants. The extreme

1. Ristey, *People of India*, p. 93.

view of the urgent necessity of early marriage is unknown among them, and it is thought no shame for a man to have a grown-up daughter unmarried in his house. Sexual intercourse before marriage is more or less recognised, it being understood that if a girl becomes pregnant arrangements will at once be made to marry her to the father of her child. Brides are bought for a price ranging usually from Rs. 10 to Rs. 25 and the wedding may take place, according to arrangement, at the house of either party. When, as is more usual, it is celebrated at the bride's house a square space (*marwa*) is prepared in the courtyard (*angan*) by daubing the ground with rice-water. In the centre of this space branches of "mahua" and Sidha trees are planted, bound together with five cowrie shell (*cyproca moneta*) and five pieces of turmeric, and at the corners are set four earthen water-vessels connected by a cotton thread, which marks the boundary of the square. Each vessel is half-filled with pulse and covered with a concave lid, in which a small lamp burns. On the arrival of the bridegroom with his following of friends, he is led at once to the *marwa* and made to sit on a bit of board (*pira*). The bride is then brought in and given a similar seat on his left hand. A sort of mimic resistance to the introduction of the bride is often offered by her more distant female relatives and friends, who receive trifling presents for allowing her to pass.

After the bride has taken her seat and certain "mantras" or mystic formulæ have been pronounced by the priest, usually a Bengali Brahman, the bridegroom proceeds to light the lamps at the corners of the square. As fast as each lamp is lighted the bride blows it out, and this is repeated three, five or seven times, as the case may be. The couple then return to their seats, and the bride is formally given to the bridegroom, appropriate "mantras" being recited at the time, and their right hand being joined together by the officiating priest. Last of all, the bridegroom smears vermillion on the bride's forehead and his clothes are knotted to hers, the knot being kept intact for three, four, five, seven or ten days according to the custom of the family. At the end of that time they must rub themselves with turmeric and bathe, and the knot is solemnly untied in the presence of the bridegroom's relations. No priest is present on this occasion.

Divorce is permitted among the Bhumijis, and there is no bar on the re-marriage of widows. Among the Bhumijis, the village forms the largest agricultural unit, each having its own fields within its territorial boundaries, marked by such natural features as hills or streams. Generally, the arable fields lie around the village and may not be at a great distance from it as the cultivation of such land is carried on from the village.

The staple cereal food of the Bhumij is rice and millet. But the cultivation of these varies in different regions according to the altitude and temperature. In the lower regions where the land is more or less flat, the staple food consists of both rice and millet.

The rugged topography have isolated them from other areas, in this way making them conservative in ideas. The dominant roll of nature upon their lives has turned them into orthodox devotees of God. They are poor but not on account of climate but due to the mountainous nature of their country. The lack of level-land has forced them to cut hard slopes and turn them into terraces. The cold climate has made them happy, contented and honest. On account of their strong physical build, every year hundreds of young Bhumij lads are recruited into the armed forces of the country.

THE GONDS

The Gonds are amongst the most civilised and advanced aboriginal tribes of India. The present habitat is confined in the Satpura plateau, Bastar, a portion of Nagpur plateau and the valley of river Narmada in southern India. This part is the original habitat of the Gonds, although by now these have settled in other parts of southern India. The land of Gonds is known as Gondwana. Historically speaking, they at one time formed a ruling class of the local parts of the country.¹ Mr. C. S. Venkatachar states, "The Gonds may be pre-Dravidians of the south on whom the Dravidians have imposed their languages and due to some causes in the regions of south-east Madras, there must have been a large scale displacement of the tribes into the interior of the central regions."²

Anthropologically speaking the Gonds residing in Madhya Pradesh are dark in skin colour, having straight coarse black hair. The hair-growth on their body is relatively scarce. According to Hislop, "All are a little below the average size of the Europeans and in complexion darker than the generality of Hindus. Their bodies are well proportioned, but their features rather ugly. They have roundish heads, distended nostrils, wide mouth, thickish lips, straight black hair and scanty beard and moustache." As will become evident from the tale below taken from Dr. Majumdar's anthropometric survey of Bastar in the Central Provinces now in M. P., the race admixture among the Gonds had been fairly well. The table also shows various branches of Gond tribes, but the Halbas and Dhakars are not

1. Dr. I. Singh in *The Gondwana and the Gonds*, p. 1.

2. C. S. Venkatachar, *Centre of India* 1935, Vol. I, p. 13.

affiliated with the Gonds. But the fact that a racial mixture might have taken place due to close contact between the two is hardly an exaggeration.¹

Name of group	Cephalic Index	Name of Group	Nasal Index	Order of social precedence in Bastar
1	2	3	4	5
Kondagaon Muria	73.04	Kongaon Murias	85.52	Hill Marias
Hill Marias	73.20	Bhatras	85.14	Danadami Marias
Gadabas	74.27	Gadabas	84.37	Gadabas
Narainpur Murias	74.42	Parjas	83.79	Muria Kondagaon
Muria (Female) Dhakars	74.88 75.17	Dandami Murias	83.62	Muria Narainpur
Nawagarhia Bhatras	75.81 75.33	Hill Marias Nawagarhia Gonds	83.03 81.49	Parjas Bhatras
Dandami Maria	75.96	Narainpur Marias	81.12	
Halbas	77.75	Muria Female	80.96	
Parjas	77.79	Halbas	79.28	Halbas
		Dhakars	77.91	Dhakars

The climate of the Gond country is mainly sub-tropical in general and varies in particular, as the Tropic of Cancer passes through the region. The temperatures are greatly modified by the local hills and plateaus with an average of 70 degrees F. As the region is confronted with the Arabian sea branch of the monsoon, the rainfall comes in torrents. This combination of temperature and heavy rainfall leads to a dense growth of vegetation. The summers, are of course, hot with temperatures over 116°F. The average rainfall is of 40 to 60". The vegetation is varied and dense. Due to the rugged and forested nature of their habitats, the population is relatively less dense.

The Gonds do not like to build their houses near the cross-roads as they are most conservative and like to remain aloof from the outer world and maintain their old ways of life. The houses are generally built upon a large "bari", about one

1. Quoted by Dr. Singh in *Gondians and the Gonds*, p. 8.

acre in size. On this tract they generally grow mustard, tobacco or the vegetables for their daily use. The Gonds eat roots and animal's flesh, and some millet which is made into "ko-on", a local made liquor. Agriculture is very difficult in these hilly tracts. The little cultivation that is carried on is by forming terraces of the slopes of the plateaus. Hence the system of cultivation is known as terrace cultivation. The higher terraces grow barley, millet and corn; rice and wheat are grown on the lower slopes. The table given below taken from "The Gondwana and the Gonds," by Dr. Indrajit Singh, shows the principal crops raised in those areas and the distribution of Gonds.¹

Name of District	Principal crops	Other crops in order of importance	% of Gond population in relation to total population of the Distt.	Location of the Distt. within the State
1. Mandla	Rice	Kodon, Kutki Wheat	59	North
2. Seoni	Wheat	Kodon, Kutki, rice	60	West
3. Chindawara	Wheat	Juar, Kodon, Rice	34	West
4. Betul	Wheat	Kodon, Kutki, Rice	29	West
5. Chanda	Wheat	Rice, Cotton, Juar	22	South
6. Balaghat	Rice	Kodon, Kutki, Til, Wheat	21.7	Central
7. Raipur	Rice	Wheat, Gram, Kodon	15	West
8. Bilaspur	Rice	Wheat, Gram, Kodon,	14	East
9. Jubbulpur	Wheat	Gram, Rice, Kodon, Kutki	11.5	North
10. Hoshangabad	Wheat	Gram, Kodon, Rice, Kutki	11	West

The fertility of soil also receives due consideration in the selection of a new village site, for on it lies their prosperity or otherwise misery. Although the Gonds try to maintain the soil fertility by applying the cow-dung and all the rubbish of their households, yet the soil should necessarily be somewhat fertile. The Gonds have a very keen discriminating power as to the softness or hardness of forest-woods. They always choose the hard timbered wood to take the handle of their axe and other agricultural implements. Kharmer, Khair, and Karra are amongst the hard-woods which are frequently utilised for this purpose.

1. Dr. Indrajit Singh, *Gondwana and Gonds*, pp. 33-34

The village site is chosen by the village priest, after performing certain religious rituals, which are believed amongst them as very essential in order to make the unknown spirits and ghosts to quit that particular site. Besides this religious factor, other environmental factors are also taken into consideration. The foremost amongst them is the availability of suitable and sufficient drinking water for human beings as well as for their domestic cattle and beasts of burden. Such is the force of this peculiar factor that nearly every Gond village is seen along the river banks or sometimes a perennial lakelet or pond. In case it be a river, their diet is sometimes substituted by the fish, which they catch with the local nets with the fibre of the trees known as bhimal. The Gonds primarily select a village site from the view point of their security from their enemy raids. In doing so they always prefer some elevated portion of the forest where from they could see the encroaching enemy and defend their encroachment. It is due to the importance of this factor that most of the Gond villages are located in the comparatively elevated portions of the forests. In selecting an elevated site the Gonds foresee the suitability of drainage. The habitat of the Gonds receives rainfall averaging 45 to 55 inches annually, which necessitates them to prefer an elevated portion of the earth so that the rain water may not remain in their fields and households and cause inconvenience and harm to the villagers. All the above mentioned factors are entirely the task of the village Panchayat to look for in selecting a village site. The selection of a new site arises only either when some natural calamities such as forest fires, overtakes them or when a village somehow remains secure from the sight of the enemy. The huts are built in two rows leaving a wide street in between. The burial ground where the deads of the village are buried, always remains a site east of the village.

As is generally the system amongst the tribal people, the Gonds also maintain the youth houses or Gotul, where the bachelors of the village both boys and girls, sleep in separate apartments at night. Generally the youth house is built at the end of the village, and the main function that it is supposed to perform is to protect the villagers from outside raids, as the youth house is composed of all the able bodied persons of the village. It is common in the youth house, comprising both of men and women, that love affairs may take root, which ultimately turns out into marriage. But such things are maintained strictly secret, but whenever the secrets are disclosed, the miscreant is severely dealt with and is removed from the membership of the Gotul, until the requisite fines are paid for by defaulters. After marriage the husband and wife are allotted a separate cottage to sleep in. The sexual intercourse in the house is not

considered proper and it is generally done far away from the home, under the shade of dense trees "The Hill Marias" according to Grigson, "are still doubtful about the propriety of men sleeping in the house and regard the jungle or some place overshadowed by the thick leaves of the Siari (*Bauhinia Vahili*) creeper as the right place for intercourse between man and wife."¹ It is due to the fact that sexual intercourse inside the house is supposed by them to annoy and vex their God or Goddess, and ancestors; and that the "sex act performed in the house would have the same effect as doing it in the public. The sanction for this custom may be traced to the belief that such irregularities result in damage to crops by pests or in the complete loss of yield and general calamities such as excessive precipitation, inadequate rainfall, diseases of cattle and crops and the various epidemics which claim their toll from the people." Due to the existence of youth houses, the sexual integrity of the girls is more doubtful and rarely a girl remains virgin before marriage, however, pre-marriage sexual intercourse is not supposed disgracing. "When the pre-marital sex relations are freely allowed among the Gonds it is doubtful if any girl retains her virginity up to the time of her marriage."² But after the marriage both the husband and wife must remain faithful to each other regarding sexuality.

The Gonds strictly observe exogamy. Cross cousin marriage is generally practised. Such marriage is termed as "Dudh-lautawa." It saves the excessive bride price. If, however, when the bride is chosen from others they have to procure a high price. A curious custom prevails among Gonds, it is that the "bridal procession usually starts from the house of the bride with bride and the main ceremony takes place at the house of the bridegroom." Polygamy is widely prevalent amongst them. It has got an economic background behind it. The greater number of wives provides additional hands to work in the village fields, to feed the domestic cattle and to look after the welfare of the male family members.

Besides agriculture the Gonds also practise hunting. Their main hunting arms are the arrow and the bow. The arrows are generally impregnated with deadly poison which they extract from a certain root black in colour. The fields of the Gonds in the forests are fenced from all sides in order to prevent the wild animals from entering the fields and destroying the standing crops.

1. Grigson, *The Maria Gonds of Bastar*, p. 113.

2. Dr. I. Singh, *Gondwana and the Gonds*, p. 24.

THE JUANGS

The main areas of the concentration of the Juangs are Keonjher and Chhota Nagpur plateau. They are found in smaller number in Keonjher. The habitats of the Juangs consist of wooden and grass thatched huts measuring 6 ft. in length and 8 ft. in breadth. Every wooden house has two apartments, meant for separate purposes. In one apartment they keep their utensils and other articles, and the second apartment is occupied by husbands and wives with their daughters. The male children, after resuming worldly sense, are admitted into the Gotul or youth clubs. These youth clubs are generally built at the end of the village, where the youths of the village keep a watch over the whole village and protect it from outside attack or wild beasts. Sometimes the Juangs build their huts on the trees to seek protection from the wild beasts. Their clothings mainly consist of barks of the trees, and even today some people wear the bark of the tumba tree to conceal their nudity and the rest of the body remains bare. The women too wear clothes made of some soft leaves. They are very fond of meat and swallow all kinds of flesh, even rotten one. To obtain their favourite food they wander frequently in forests killing animals, insects and birds, and in addition to it, they also relish the forest products, such as certain roots, wild fruits and berries etc. In the heart of the Chhota Nagpur plateau the peacock and the wild buffaloes are still found in large numbers. Sambhar or *Rusa aristotelis*, chital, neelgay, and muskdeer are plentiful. Some of them also practise agriculture by burning a tract of forest and sowing some seeds thereon, and some ones collect the dry fruits from the forests and sell them in the nearby villages or markets, thereby eking out their livelihood. Fishing and hunting are most important means of eking out their livelihood, because the other natural resources have not yet been exploited fully and properly. There are forests containing trees such as sal, char, teak and tendu etc. Thus their usual occupation is cutting of wood and collecting silk cocoons, lac, and other 'ringal' products.

The marriage usually takes place amongst them at an early age. The Juangs are matriarchal and patriarchal but gradually the latter is overtaking the former and the influence of women folk is getting less effective. Ethnographically, the Juangs approximate very closely to and probably connected with the Dravidian tribes. The physical features of the Juang community greatly resemble with those of Negrito. It can, therefore, be safely deduced that the Juangs are an admixture of the Dravidians and the Negritos. Their head is generally elongated, distended nostrils, broad face, straight and dense hair-growth on the head and sometimes everted lips. As a whole their physical

build is very stout and muscles are well-developed in their whole body. The women amongst the Juangs tattoo their breasts with St. Andrew's crosses, on either side and St. George's in the middle of their breasts, as shown in the figure:

Their forehead is also tattooed with dots, and also make a vermilion mark on their heads during the commemoration of certain auspicious occasions.

The aboriginal population of southern India is comprised of the following tribes. The Kadar—found in the extreme south in Travancore and Cochin with frizzly hair, have undoubtedly the Negrito racial features. The skin colour is nearly brown to dark brown. The eyes are brown to reddish. There is a dense hair-growth on their heads. There is much controversy about the cephalic index of Kadar tribe. Dr. B. S. Guha finds the Kadar of Cochin to be dolichocephalic. His division is primarily based on the anthropometric survey of 2000 heads, which has been fairly well. But according to Majumdar the Kadars are of brachycephalic or short-headed. Really speaking, the Kadars of Travancore and Cochin are long-headed or dolichocephalic. The length-breadth index has a great taxonomic value in distinguishing local varieties of man, but determining the racial affinities of the tribes is one of the most difficult tasks that has had to be confronted by the Indian raciologists. The Kadars are the semi-nomadic tribes. The other sources of eking out their livelihood are hunting, fishing, and honey collecting. Women folk go to collect edible roots, tubers, and wild fruits. Goats, cattle and hens are the domestic animals of the Kadars. On the other hand, "all sorts of game and fish, but the bison, and the bear are two animals which no kadar will touch, living or dead. They are very fond of honey."¹

The Kotas, neighbours of Todas in Nilgiri hills, are the artisan tribes, and they also act as musicians on ceremonial occasions. Fraternal type of polyandry generally prevails amongst the Todas. The Badagas, also of Nilgiri hills, are excellent agriculturists. But numerically speaking they are very small because the agricultural economy cannot support large numbers and the harsh environmental conditions do not help the development either of settled type of agriculture or of pastoralism. The Muthuvan, Kanikkars, Erulas, Sholaga, and other tribes of Travancore, further north are economically advanced. They take meat of sheep and goats. The primitive tribes in Travancore numerically speaking are as follows : ²

1. K. G. Menon, *The Kadar of Cochin*, in *Census of India* p. 213.

2. Menon, *Census of India* 1931, Vol. 3, pt. 1, p. 302.

people living on wild fruits, and tubers etc., also sometime chase wild animals for their flesh. The main hunting arms of them are the arrow and bow. They eke out their livelihood with great difficulty. The only source of eking out their livelihood is fishing and hunting, and occasionally cultivating small patches of fields with millets as the main crops. Spirit dances, the chief religious rites are practised by Chenchus and other forest tribes. WENADIS, is the other important hill tribe of Nallaimalais. Some of the food-gathering tribes of Nallaimalais supplement their food by rice and millet raised in the forest clearings. The Palivan tribe lives in the extreme south of Madras. Their skin colour is dark brown to brown, eyes are small. There is dense hair-growth on the heads, flattened occiput. The women enjoy high status and power. The main occupation of the people is agriculture. Besides agriculture, fishing is subsidiary occupation of the family. The economic life of the Palivan is, therefore, characterised by the division of human labour. The following table shows the other important tribes of Madras State:—¹

Tribes	Population
Trdris	79643
Dambo	2807
Karimpalam	1581
Katturayakan	1211
Kudubi	70527

THE KOYAS

This tribe lives in Hyderabad side of Koya area and southern most branch of Godavari river and the adjoining districts of Madhya Pradesh. They are patriarchal tribes, and divided into many clans. The word Koya, meaning thereby hilldweller. "The tribe is divided into several occupational sub-tribes such as black-smiths, carpenters, brass-workers, and basket-makers." The Kondas, neighbours of Koyas, in adjacent districts of Hyderabad and Madhya Pradesh, are the agriculturist tribes. Their mode of life is the same as that of the Koyas, but they are much better farmers than the Koyas and more self-supporters. Most of the southern tribes have gotuls. Grigson has given an elaborate account of ghotal life amongst the Murias and Marias of Bastar, "Boys and girls of an age to visit the dormitories are known as Leyur and Leyas respectively. All the boys assemble at the dormitory in the evening for dancing, games and social and sexual training, sleeping on there after the departure of the girls to their homes late in the night. The girls attend at the dormitory in the evening, each girl being paired off with a boy of

1. Hutton, *Census of India*, 1931, Vol I, Pt. I, p. 504

Akonana clan. The girls have to comb their boys' hair and massage their arms and legs to dance with them and to be initiated into the mysteries of sex with them. Marriage frequently follows these dormitory unions, but by no means it always does. Married people are not allowed in the gotul, except widows or widowers who want to share the youth houses. The Gadabas are mostly confined in Jaipur, Koraput and Malkangiri areas. They are the Munda or Dravidian speaking tribes. Physically they are short and medium in stature, deep chocolate to brown or nearly dark brown in colour, the face is short and projected forehead. There is a dense hair growth on the head. The Gadabas are farmers, but there again fishing is an occupation often combined with agriculture. The Gadabas are very expert in weaving and spinning. According to A. Aiyappan, "The Gadaba women are good at weaving bark fibre cloth on miniature looms of their own manufacture and the woven fabric is dyed by them with various vegetable dyes. In fact no Gadaba girl is considered qualified for marriage until she has acquired the requisite skill on the loom."¹ The Baigas of Vindhya Pradesh are very fond of the flesh of animals such as pigs, stags, etc. During the festivals and other auspicious occasions, both men and women participate in their folk dance and enjoy it very much by singing.

In the various hill ranges of Vishakhapatnam Agency and the adjacent areas of Orissa and the Chhota Nagpur Plateau live the numerous tribal population, one of the tribes being that of Savarnas. According to A. Aiyappan the dwelling place of Savarnas is a beautiful tract of the country with lofty hills, darting mountain streams, and deep gaping valleys. It is also picturesque. The terraced rice fields too, add to its beauty. They are like the Gadabas, agriculturists but hunting and fishing make supplementary contributions to their diets. Physically they vary in skin colour, ranging from brown to light brown. But on the average they are dark brown in skin colour. There is a dense growth of hair on the head. The Khonds tribe live in Orissa and the Visakhapatnam Agency. They are mostly of the Dravidian-speaking tribes. Fishing and hunting are the main sources of eking out their livelihood. They are patriarchal tribes and divided into many sub-clans. The Ho tribe lives in Singhbhum, in Bihar, and in the Chhota Nagpur plateau. In the Chhota Nagpur plateau and in Bihar, the Ho tribal people are almost agriculturists. The tribal population of Chhota Nagpur and Bihar, are also employed in collecting forest products, such as lac, resin-tapping and gum etc. Besides this, lumbering is the other source of their income. The Ho tribes are Indogamous. The tribe is divided into exogamous clans known as Killi, which are often associated with

¹ A. Aiyappan, *The Adivasi*, p. 37

totemism.' Due to the demand for exorbitant bride prices, a large number of unmarried girls are associated with the family. On account of the high bride price, capture marriages are generally practised amongst the Hos, who call it as "Oportipi". Like the Khasi tribes of Assam, some of the tribes of the Chhota Nagpur plateau, the husbands never stay at their wives' houses during the day time, but visit only during the nights. Living in the plateau of Chhota Nagpur, the Kharia are patriarchal tribes. Amongst them, marriage takes place in the following ways. 1. "When two lovers run away and stay away till they are accepted back." 2. Marriage by intrusion. 3. "Forcible application of vermilion, at some fairs or festivals, by a boy on his chosen lover's head. This is a legal form of marriage (by capture) which does not involve bodily lifting away the girl." 4. Levirate and widow marriages are also practised amongst the Kharia tribes. Above all, the Kharia family is based on monogamous marriage, polyandry, however, is completely forbidden. The Kharia family consists mostly of the husband, wife and their children, but sometimes, it follows the Joint Family, consisting of son in-law. In some Kharia tribes, uncle and cousins and nephews also live in one family. Adoption of child is widely practised amongst the Kharias and this is done when the wife of a Kharia does not bear a child and the husband does not want to undergo bigamy.

THE ONGE OF ANDAMAN ISLANDS

The Andaman islanders are the Semi-nomadic tribes. Physically the tribes of Andaman are Negritos, with dwarfish stature. The nose is flat and broad, the head is slightly roundish. The face is mostly short and broad occiput. Lips are usually moderately thick, but occasionally everted. The body has got well developed muscles in all its parts. The skin colour is dark brown to nearly black. The iris is dark brown and even the white of the eye has a brown tinge. Men wear nothing but a plain loin cloth, and they otherwise remain nude. The women wear a belt either of pandanus leaves, one to two inches broad, and this peculiar leaf-cloth has many hanging thread like ropes hanging towards their thighs. There is a peculiar physical feature of the female Andaman islanders, according to E. C. Buchi that is called *steatopygia*, "The enormously developed buttocks. They project so much backward as to form a balcony on which the children can freely stand."

The Andaman Islanders are divided into several local groups. But the geographical classification finds support on the linguistic and racial affinities of the people of the Andaman Islanders.

1. Majumdar and Madan *Social Anthropology*, p. 50.

which can be divided into two main groups¹—(1) The Great Andaman Group:—Except the Jarawa inhabiting the interior of the south Andaman Island.

(2) The Onge-Jarwa-Sentinelese group. The Onge inhabit the little Andaman. Ptolemy first referred the people of Andaman as a most "brutish and savage race." Both the sexes hold an almost equal position in the society. Speaking very broadly, the Andaman islanders can be divided into the following groups according to their occupations:—1. The Tribes living on hunting and fishing, 2. Nomadic Tribes, 3. Artisan Tribes.

Hunting and fishing are the main occupation of the tribes. Thus in the hunters and fisher tribal society, there can be no cattle property. Bow and arrows are the chief weapons of the people. The bow is made from a straight piece of wood. The communities of the advanced food-gathering economics possess small huts. They live wholly on the forest products. They are also the occasional fishermen. Honey collection is the subsidiary occupation of these people. "The inhabitants of little Andaman do not know how to make a fire, but they are expert at selecting wood which would smoulder for a long time. When travelling or hunting, a piece of smouldering wood is carefully carried along." Some Andaman islanders depend upon the pastoral economics. In advance pastoral economics the pastoralists possess property in the shape of sheep, goats etc. which is considered as the private property of the owners.

1. E. C. Buchi, *The Andamans*, p. 62.

CHAPTER XI

TRIBES OF NORTH EAST FRONTIER REGION

THE topography of this region is very rugged and uneven, smaller and larger hills, covered with the dense virgin forest growth, is the characteristic feature of the topography of this region. The region being the first to intercept the monsoons of the Bay of Bengal, also receives torrential rain. The region being rugged and heavily forested lacks of means of transportation, which is a factor totally rendering the region isolated from the outside world. Naturally, therefore, the region is scarcely populated and whatever population is there, is limited to a very few level surfaces, especially in the valleys of the rivers. The region has a special significance in that it has kept the aboriginal tribes and their cultural traditions aloof from the outside influence, and thus retained the primeval cultures of the aborigines. These sons of nature include the tribes such as Nagas, Garos, Abors, Mishmis, Khasis, Akas, Daflas etc.

The Nagas have their habitats on both the sides of Patkoi mountain and the northern Indo Burman frontier. These regions are very much rugged, densely forested and extremely lacking in the means of transportation and really speaking, these are one of the most backward parts of the country, and excepting the aboriginal tribes, the so-called civilized human population is totally non-existent there.

The origin of the word "Naga" is unknown, but it has been supposed by some to have been derived from the Sanskrit word "Nagan or Nagna." Generally the Nagas remain nude, which might have led to the nomenclature Nagas. But most of the other primitive tribes also dwell in nudity, but they are not called Nagas. Hence the etymological derivation is misleading. There seems to be historical background lying behind the origin of the word Naga. The primitive "Nag" people of Kumaon seem to be the branch of Nagas of Assam hills, because frequent references of Naga tribes are found in the ancient Hindu Puranas and other religious scriptures. These people were the worshippers of snakes and were residing both in the hills and plains. It is said that these people were the original residents of "North-West border of China" across the Himalayan mountains and they made the "Nag"-snake-their religious symbol. In the Hindu puranas they are sometimes referred to as snakes, and sometimes as men. But it is clear from the Indian mythology that at a time the

Hindu Rajputs tried to eradicate the whole of Nags or snakes. Such examples are to be found in the Mahabharata, in which king Janamajaya performed a "Nag Yagya" to kill all the snakes. There is a Nag Lake or Nag Hirdaya in Nepal, where the Nag King Karkotak resided, and to commemorate him, every year a fair is held near Kathmandu. Some Tibetans call them as belonging to the Nag Dynasty. The Nags are looked upon reverently all over India and they are still worshipped. A religious festival Nag Panchami, is celebrated all over India. At present some people or semi civilized tribes of Nags reside in Garhwal. According to Atkinson, "In Garhwal we have traces of Nagas in the names of Patti Nagpur and Urgam, and the universal tradition of their residence in the valley of river Alaknand. At present the Seshnag is honoured at Pandukeshar, Bekal Nag at Ratgaon, Sangal Nag at Talor, Bampur Nag at Margaon, Lohandia Nag at Jelam in Niti valley and Pushkar Nag at Nagnath." There are several Nag temples in Kumaon and Pithoragarh such as Beni Nag, Kali Nag etc.

Some writers are of the opinion that the Nagas and Sakas belong to the Scythian race. The Nag came into India at an early period and the Sakas came after them. The Nagas of Kumaon and those found in the North-East Frontier Regions are the same and most of the Naga tribes have "emigrated from the North-West borders of China, probably during the sanguinary conflicts for supremacy, which took place between the different members of the Chinese and Tartar dynasties in the thirteenth and fourteenth centuries, others may from like political causes, have been driven into the fastnesses of these hills from Assam and Bengal, and brought with them languages very different from each other."¹ Some of the tribes practise shifting agriculture, but most of them depend for their livelihood on the forest fruits, roots, and flesh of wild beasts. They are dark in colour, their hair being straight, stature tall and slightly developed epicanthic eye fold. Some of their physical features resemble with Mongoloids, hence it can be concluded that before the Mongoloids entered India, there might have already existed a race—that can be Australoids or Negritos hy-bridization and intermingling might have taken place resulting into a new race—the Nags or the Nagas. In this way the primitive Nag people of Kumaon seem to be a branch of the Nagas of Assam hills, although the former have become more civilized as they frequently came into contact with the civilized elements of human society. As regards their nomenclature, it is more likely that the appellation is due to a worshipper of Nag (Kumaoni and Garhwali Nag-snakes), and ultimately in this way the etymological derivation applied to the hill tribes of NEFA

1. Quoted by Dr. Elwin, *India's North East Frontier*, p p. 27-28

and Kumaon. Even at present some people called Nags, perform the snake worship in parts of Kumaon and Garhwal districts.

The primitive Nagas of NEFA area of Assam can be divided into the following sub-groups .—

- (1) The Nagas of North Assam Hills, the prominent among them being the Rangapan and Konyak.
- (2) Those inhabiting the western parts, of Assam which contains the Rangma, Sema, and Angami Nagas.
- (3) The Nagas in the east comprising the Tankghul and Kalyakengu
- (4) In the South, adjoining the Lusai and Kukis Hills of North Burma come the Kabui, etc.
- (5) The central region of the Assam Hills comprises the Yimtsungor, Phom, etc.

The Nagas of Assam are divided into numerous communities. Although all of these tribes and sub-tribes belong to Naga community anthropological traits, but the social customs and traditions of two Naga tribes are seemingly different, and moreover the local dialect spoken by them is also quite different and the Nagas belonging to two different tribes cannot converse with each other, and in such cases except medium of the third dialect which is common to both. The naga dialect belongs to the Tibeto Chinese family, which is essentially an isolated or monosyllabic language, although among the tribal population of Assam the Agglutinative principle has developed to some extent.

Anthropologically, according to Dr. Hutton the Nagas resemble the Australoids. Their skin colour is dark, eyes small, faces are very long, features flat and scarce hair growth on the face as well as on the body. "On the face" according to W. Robinson,, "It is seldom or ever found either in the shape of beard or moustache, and on the head it is deficient in quantity, is knotted on the crown and fastened with a rude semi circular comb, manufactured by themselves either from the wood of the jact, or of the "tetahapa." The average height of them is about five feet ten inches and they are seldom inclined towards obesity " The Naga males are generally taller than their female companions, and according to Dalton, "they are short, ugly, and waistless, too hard worked perhaps to be beautiful." The women are short in stature generally and their figures are remarkable rather for strength than beauty. They tattoo a good deal on the shoulders, body and legs, but not on the face.

Marriages among the Nagas are not contracted in childhood. among the Nagas is very peculiar. "This probably arises in a

great measure from the difficulty of procuring the means of paying the parents of the bride the expected "douceur" on giving the suitor their daughter as wife. Hence the youth, who wishes to espouse a girl, if accepted, agrees to serve her father for a term of years, generally limited to the period at which she may be considered marriageable. At the end of his servitude, a house is constructed for young couple by their parents, who also supply them with a small stock of pigs, fowls, and rice. A long previous training has fully qualified the young bride to enter upon the duties of her new station, and the value of her services is generally so well appreciated, that nothing is more prompt than the vengeance of a Naga for any insult offered to his laborious partner; "his spear gives the ready reply to any remark derogatory to her honour."¹ During marriages they kill dogs and other animals. The physical environment stimulates arts and skills which are peculiar to the culture of each community. Their principal form of artistic expression is dancing which has become the inspiration of professional dancers in rural and urban areas. The love of dancing is a favourite passion among nude tribes of the world, and we find it to be the same with the Nagas. Singing and dancing are the main components of marriage festivities. Both men and women participate in dancing and singing, "all the Naga dances," according to W. Robinson, "are imitations of some actions, and though the music by which they are regulated is extremely simple and tiresome to the ear by its dull monotony, some of their dances appear wonderfully expressive and animated. The war dance is perhaps the most striking. In this the women dance in an inner circle, whilst the men holding up their weapons in their hands dance round them, beating time and singing in strains of wild and plaintive melody." Robinson goes on to say that—"The women on such occasions are neatly dressed in long dark blue or black garments, ornamented with all their finery of beads and brass rings about their necks. They move in slow and decent movements, but the men, arrayed in their full war-dress, enter with enthusiastic ardour into their several parts, they exhaust themselves by perpendicular jumps and side leaps in which they exhibit considerable agility. On the whole their gestures, their countenances, and their voices are exceedingly wild, and well-adapted to their various situations"²

The Naga tribes of North East Frontier practise shifting agriculture. The similar practice of Jhuming is also found in their agriculture system. Usually a tract of forests is inflamed and when the trees turn into ashes, the rice seed, which is also

1. W. Robinson, *Descriptive Account of Assam* Quoted by Elwin.

2. *India's North-East Frontier*, Quoted by Dr. Elwin, pp. 29-30.

max, the poor captive is killed mercilessly with spears, and his head is preserved and hung outside the village or outside the house of the village chief, the rest of the body is roasted and eaten.

The Naga economy is mainly dominated by bamboo, which is utilised in the construction of houses, arrows etc. Even the cooking utensils are made of bamboos. The chief means of their livelihood are hunting fishing, honey gathering, basket making and agriculture. Konyak, Kabui, Bhoka are the names given by the anthropologists to various sections of one and the same race inhabiting the mountains between the Assam valley and Burma, and settled also to some extent in the valley itself, where they follow a system of migratory cultivation. The tribes of North East Frontier Agency have long been accustomed to the system of shifting cultivation. Land in the NEFA areas consists generally of poor, rocky and barren soils on which in most cases only coarse cereals, pulses and rice are cultivated. The staple food is the rice and the flesh of wild animals. The Nagas, besides rice and flesh, also eat maize, potatoes, radishes and beans. The meat is eaten after roasting it over the fire. The rice is cooked in a hollow bamboo pipe which is plastered on the outer side by the clay. The hollow bamboo pipes are also used as vessels for keeping and drinking water. In addition to grain, large quantities of fibre of the best quality are grown, chiefly by Angami Nagas, Bhoka Nagas etc., who inhabit the Northern and Western parts of Assam. The bamboos are woven into mats and baskets by the Nagas of NEFA. The extremely useful trees, Kharik and Quaral grow in the lower slopes and valleys and are carefully protected by the Nagas, for their leaves afford a very excellent fodder for goats and cattle.

Youth houses of Gotul are also maintained in the Naga villages. All the bachelors of the village have to become the members of the Gotul where they remain at night also. Sexual intercourse before the marriage is treated as a crime and severe punishment is awarded to the culprit. When a couple of the youth club is married, it no more remains a member of the Gotul.

The Nagas of India have always been hostile tribes and they have ever resented outside pressures and penetrations in order to keep their traditional cultures. Those tribes which still remain in their native hills preserve their primitive religion and customs, and in many cases also their own language. But recently a political consciousness has overtaken them. For many decades they have been politically mislead, which have created a political fuss in the Nagas. Recently they have asked for the creation of a separate Nagaland under the Indian Republic, and the Govern-

ment have approved their demand as a result of which the Nagaland, comprising of Naga Hills and adjacent areas has been created. In this way the Nagaland has become by far the smallest State with an area of 6236 square miles and a population of 3,55,000 approximately.

THE KHASIS

The Khasis inhabit the western half of the district to which they have given their name. Geographically, the tract forms an irregular parallelogram, the length of which from north to south, may be assumed at about 70 miles and its average breadth at 50, giving an area of about 3,500 square miles. On the north, it is bounded by the plains of Assam; on the south, by those of Sylhet; on the west by the Garos; and on the east by the central portion of Kachar. This area consists of three portions of unequal breadth and diversified character—the first or northern most is a closely wooded tract, rising from the Assam Valley and stretching by a succession of gentle undulations for 20 miles, to the heights on which stands the village of Mopsa, 2,746 ft. above the sea, and from which the northern crest of the more elevated central plateau is seen, resting at an elevation of between four and five thousand feet above the same level.

From Nunglow, which stands on the edge of the northern crest, to Moosmye, which is similarly situated on the southern verge of this elevated region, the direct distance is about 35 miles. Between Moosmye and Tara Ghaut, at the foot of the hills, a distance of about seven miles, is comprised the third division of this mountain tract, which consists of the steep face of the range, and like that on the Assam side, is densely wooded, and at certain seasons of the year, highly insalubrious viewed from the country below, it appears to spring almost perpendicularly from the plains to an elevation of five thousand feet; in some places, deep chasms are seen penetrating far into its massive flanks, forming the natural channels of numerous torrents, which reach the open country by a succession of rapids and fall, over rocky beds of considerable depth. In other spots, during the cold and dry seasons of the year, the sites of numerous cataracts are marked by a thin silvery line, extending in some instances from the very crest of the elevated central plateau, nearly one-fourth down the perpendicular face of the ascent, and in the rains these attenuated and flitting lines become foaming cataracts, which pour a vast column of water over the rocky ledges of table-land.

The plantations, from which Bengal is supplied with oranges, occupy a belt of from one to two miles in breadth, at the sloping base of the mountains, and in a soil formed of the

detritus of the limestone, which constitutes the principal rock on this side of the range; limes and pice-apples, the jack-fruit and mangoes, betel-nut and plaintains also grow luxuriantly, to an elevation of nearly 2,000 ft. above the plains, when the character of the products indicates a change, from a tropical to a more temperate region; and the wild raspberry and strawberry are detected, on the borders of the numerous small springs which issue from fissures in the rocks.

On the Assam side, the inferior hilly tract, which unites the lofty table-land and the plains, is covered with dense jungle, as far as the village of Oongawye, where it becomes more scanty, and is succeeded by a more open tract, in which the fir begins to appear, extending from the village of Mopea to the Sari or Bor Panee, which rushes over its granitic bed. "This tract, extending from Ranagaon to Mopea, is so decidedly insalubrious, that it can only be traversed with safety between the months of November and March; and this, which, from a very early period, was fatally manifested, almost entirely neutralized the advantages anticipated by the residence in Assam were proceeding in search of health to Churra or Myrung."

The central tract, which is very imperfectly described by table-land; for though unmarked by any very lofty elevations, still it is so much undulated, and diversified, by numerous hillocks and knolls, valleys and chasms. Till recently when the transport facilities were not so much developed, the tribes residing in the inaccessible and remote parts of the North Eastern Frontier had been able to retain, their racial entity and cultural patterns. The most important tribe of this region is Khasis.

Ethnologically, they are closely allied to the Syntergs, Lynamas, Dyks, and Bhois, and have strongly marked Mongolian features-oblique eyes, a broad bridgeless nose, high cheekbones, and a short head. In stature they are short and stumpy, but extremely well developed, especially about the calves, and even the women are capable of carrying heavy loads which a native of the plains would scarcely be able to lift. They have little or no beard, but the moustache is occasionally fairly abundant. Their disposition, more specially that of the women, is cheerful, they are industrious and by no means deficient in personal courage. They are much addicted to gambling.

Marriage is a purely civil contract, and is usually arranged by the parents or agents of the parties. As a rule, no price is paid by either bride or bridegroom. There is no religious ceremony; the bridegroom goes to the bride's house escorted by his friends and relations, and next morning leads the bride to his own house, where he gives a feast to all and her relatives. After stay-

ing there for a day or two the newly-married couple return to the house of the bride, where they cohabit. Among the poorer classes, the bride remains in her mother's house and the bridegroom in his but having free access to the bride whenever he may wish to visit her. When children are born, if the husband is still satisfied with his wife he builds a separate house, to which he takes her and lives there with her and the children.

A woman is the head of the Khasi family. So long as a man remains in his mother's house, whether he be married or unmarried he is earning for his "Kur" (his mother's family), and his property goes on his death to his mother, or, failing her, to his grandmother. Should the latter also be dead, his sisters inherit, and next to them his sister's children. In the absence of any of the above, the following relatives succeed in the order in which they are named, viz; his brothers, aunts, aunts' children, great grandmother, great-grandmother's sister or children. The brother's children can never succeed, as they belong to a different clan. When a Khasi has left his mother's house, and gone to live with his wife, his property descends to her and her children, with the exception of his personal ornaments and clothing which go to his own brothers and sisters. In the case of a female, the rules of inheritance are similar to those governing the descent of the property of a man living with his mother, except that in her case her children have a prior claim to succeed. All relationship is reckoned through the women. The child takes the clan of the mother, and even the scion is followed by his mother's or sister's child. His own offspring enters the clan of his wife, inherits her property, and bears her family name.

Divorce is a very simple matter, and is effected simply by a public declaration, coupled with the presentation by the man to the women of five cowries or copper coins, which she takes and throws away. Divorce is extremely common, and is resorted to for very trivial grounds, such as petty quarrels or a bad dinner. No stigma attaches to the divorced parties, and both are free to marry again. The marriage tie being so fragile, adultery or illicit intercourse is said to be very uncommon; a man or a woman with a new fancy can easily dissolve any existing ties which may stand in the way of illegal gratification, while the very ease with which this can be done not improbably tends to prevent the growth of those violent passions which often lead to mischief in more civilized communities.

They are, however, very good agriculturists. The clearing and cultivation of their steep hill-sides implies a life of toil. No field can be reached without a climb up or down the steep mountain side. The rice they grow to make their liquor is very often planted below the village, and needs constant attention all

through its existence. But their chief crop is orange cultivation. The hill tops for miles are covered with the orange blossoms in December and February.

The Khasis occupy a most charming country, enjoying a beautiful climate and a most fertile soil, well cultivated, drained and manured, the hill sides being covered with a succession of terraces of rich rice, with numerous villages in every direction, some of them so large that they might justly be called towns.

The Khasis have figured so prominently in the frontier history of Assam that a brief description of them and their villages, furnished for the Assam Gazetteer, may appropriately close this chapter—“They are an athletic and by no means bad-looking race; brown complexion, flat noses, and high cheek bones, brave and warlike, but also treacherous and vindictive. The men dwelling in the higher ranges of the hills are fine, stalwart, hard-looking fellows. Their dress consists of a dark blue or black kilt, ornamented with rows of cowrie shells, and thick cloth of home manufacture thrown loosely over the shoulders. Strings of various-coloured beads ornament their necks in front, a couch shell being suspended behind.As ear-ornaments they use the tusks of the wild boar, with tufts of goats hair dyed red. They also wear ear-rings of brass wire. Above the elbow they wear armlets, either of ivory or plaited cane, prettily worked in red and yellow. Between the calf and knee they bind strips of finely cut cane dyed black, the calves being encased in leggings made of fine cane, similar to that of the armlets. These are generally worked on the leg, and allowed to remain until they wear out. Some of the men cut their square in front, and wear it pushed up above their foreheads, the hair at the top and back of the head being tied into a knot-behind and ornamented with eagle and toucan feathers. Others again, cut their hair all round, leaving it about three or four inches long in front, and from six to eight inches long behind, and allow it to remain loose and dishevelled. The women are short in stature, stout, and extremely plain featured. The Khasi men have to perform all the drudgery of the house, to work in the fields, hew wood, and draw water, besides weaving the clothing required for the family.

“The Khasi villages are invariably built on the very summits of the hills, and vary much in size, some containing as many as a thousand houses while others consist of no more than twenty. The villages are all strongly fortified with stockades, deep ditches and massive stone walls, and the hillsides thickly studded with panjis a chevaux de frise of sharp-pointed bamboo sticks planted in the ground. In some cases, also, the sloping side of the hill is cut away so as to form a perpendicular wall. The approaches to the villages are tortuous, narrow, covered ways, only wide enough

to admit the passage of one man at a time, these lead to gates closed by strong, heavy wooden doors, with look outs on which a sentry is posted day and night when the clans are at feud. Very often these approaches are steeply scarped, and the only means of entry into the village is by means of a ladder consisting of a single pole, some fifteen or twenty feet high, cut into steps. The sites of the villages, however, are sometimes ill chosen, being commanded by adjoining heights from which the internal economy of the hamlet can be viewed, and well-judged attack with firearms would render opposition useless."

THE ABORS

The main areas of the concentration of the Abors are confined to the bank of Subansiri river to Lohit river in the north-east frontier of India. River Subansiri is one of the chief west flowing tributaries of Brahmaputra river. The Brahmaputra is known as the Dihang in the Assam before it enters the plains. Its chief tributaries in Assam are Siyom, Shimong, Vamne, Dilong, Dikrang and Lohit. The Abor settlement follows the above mentioned principal drainage lines. Hence all the settlements of the Abors are on the banks of the rivers, on the southern slope of the great Himalayan range between the Subansiri and Lohit rivers. The Abors inhabiting in these valleys are practising agriculture, catching fish and collecting the forest products for their use as clothing, food and utensils.

Topographically, Assam is a beautiful tract of country, there are waterfalls, torrents, springs, interspersed with deep and dark glens, the region gets heavy rainfall, recording more than 150", covered to their very summits with virgin forests, which resemble those of the Tropics in intensity. The lower slopes grow Sal and Bomboos. The region has unique natural beauty, provided by many rivers. The upper reaches of these rivers are very dangerous, their velocity is very great and it is too difficult to cross them. The Abors are composed of numerous clans. No one can say how many clans there are, for this grouping seems to be purely local one. The Abors, according to their clans have been divided into the following heads :—

1. The Dubba and Bor Abors, inhabiting the Miris hills.
2. The Pasial, Mayong Abors, dwelling on the right bank of Dihang. The Padoo, Siboo, Meeboo and Goliwar Abors dwelling on the west of Dihang river.
3. Chulikatta Abors, dwell in the Dibong valley.
4. Padam Abors—there are five settlements of Abors, in the vicinity of Dihang river, viz. Silook, Padoo, Pashee,

Membu and Bomsjeer. They are the most advanced amongst all other Abors. The Padams are not a nomadic people, but possess fine and large villages.

Anthropologically, the Abors are connected with Mongoloids. They are short in stature generally; slight epicanthic eye-fold, hair and eyes are black; brown to yellow in skin colour, the eyes stand at right angles with the nose, short nose. The forehead is flat, the cheek bones are somewhat prominent. Like the Mongoloids, there is a scanty hair growth on their head and body. Their dialects belong to the Tibeto-Burmese family. It is generally held that they migrated from Tibet and settled in the southern slopes of that portion of the great Himalayan range between the Subansiri and Lohit rivers. According to J. Butler, "They appear to be the descendants of the Tartar race, and are large, uncouth, athletic, fierce-looking, dirty fellows." Continues Butler, "The hair of women is cut short like that of the men, in circle round the crown of the head it is two inches long, but the hair in front and behind, below the upper circle, is only about half an inch long. The ears of the men and women are perforated, the aperture, one inch in diameter, being distended by a piece of wood, worn as an ornament, and the neck of the Abor women are loaded with innumerable glass bead necklaces of all colours. Their arms are likewise adorned from the wrist to the elbow with brass rings, the legs are exposed from the knee downwards, the calf of the leg being bandaged with cane rings to the ankles."¹ While in their habitats the Abors generally remain naked, but only when proceeding to the market for selling their local products and buying their requisites, they wear clothes. The dress of the Abors according to R. Wilcox consists principally of a choonga made of the bark of the uddal tree. It serves the double purpose of a carpet to sit upon and of a covering. It is tied round the loins and hangs down behind in loose strips, about 15" long, like a white bushy beard. It also serves as pillow at night. The rest of their dress is apparently a matter of individual taste, beads round the neck are uncommon. Some wore plain basket caps, some had the cane caps, partly covered with skins, and others wore them ornamented with stained hair, like our helmets, and resembling the head dresses of the Singfos. Almost every man has some articles of woollen dress, varying from a rudely made blanket waistcoat to a comfortably and tolerably well shaped cloak.² During occasion of festivities they decorate their bodies by wearing their choicest costumes made of the feathers of the birds. Some of their favourite costumes are made of blue-coloured cotton pieces. It also bears a red type of cotton cloth. It is tightly worn around the

1. Quoted by Elwin, *India's North East Frontier*, p. 225.

2. *ib. cit.*, p. 221.

waist. The Abors are divided into exogamous clans and they are polygamous. The women amongst the Abors tattoo their chin and upper lips with vertical and parallel lines, and also make a vermillion mark on their forehead. Women's legs tattooed by St. Andrew's crosses as shown in the figures—

x x Or ‡

With the European penetration in these hilly tracts, the mode of life of the primitive Abors have undergone a considerable change. Now they are not wholly dependent on forest products. They substitute their food sometimes by the fish which they catch in the rivers. They also grow a fibrous plant which is woven into coarse cloth, and which constitutes one of their saleable products, whereby they obtain other necessities of life from the local market. The Abors practise agriculture in a peculiar mode. They generally inflame a forest tract and cultivate it for two or three years. This peculiar type of agriculture is known as Jhum. After the fertility of one tract exhausts, they move elsewhere and burn another forest tract and settle three or four years, practising agriculture. Their main agricultural implements consist of a sharp edged stone staff by which they dig the earth and spread the seeds on the holes dug in this way. Their chief staple crop is maize. We have already mentioned that the Abor's settlements follow the principal drainage lines, especially with regard to the water supply, hence the Abors are great rice cultivators. The first year jhum cultivates mixtures of different seed crops, the second year jhum land occupies only rice after which the field is generally abandoned. They do not harvest the rice in the way we do, but instead they crush the rice seeds with their fists and the remaining plant is left standing in the field. Besides this, bees wax is collected in large quantities by Abors. They eat the flesh of wild beasts such as deer, hog, buffalo, elephant and rhinoceros, in outlet form, which increases sexual appetite.

The Abors build their houses on the perpendicular sides of rock, which forms a natural wall; the floor is made with bamboo sticks with one side supported on the rock, and other on beams driven into the ground. The houses are large and are divided into three apartments. The largest apartment in the middle remains the sleeping room of the family.

The bow is their favourite weapon and quiver of arrows, which are impregnated with deadly poison. The Abors also use spears. The social organisation of the Abors has recently been influenced by outside elements, particularly by Christian missionaries. They are trying to change their social organisation and religious customs.

Besides this, the other important aboriginal tribes of Assam are the following:—

THE GAROS—own to endogamous groups among them, the hill Garos and the Plain Garos. Their habitat constitutes the hills, plateaus, and smaller plain regions. The name Garo is derived from the Garo mountain in Assam. The Garos like all other tribes of Assam practise shifting agriculture. The Garo tribal people of Assam are matriarchal like those of the Khasi tribes, and the whole "property once owned by a motherhood can never pass out of it."³ Ethnographically, the Garos are connected with the Mongoloids. Their main physical features are yellow skin colour, short to medium stature with a flattened face and nose. Their dialect generally belongs to the Tibeto-Chinese family.

According to Hunter the MIRIS, inhabiting the lower hills adjacent lower hills of the central portion of the range stretching from the Garo to Patkoi mountains, but at present they are mainly confined to the Miris hills. Anthropologically speaking the stature is short to medium, but exceptionally "tall men of great muscular power." Eyes are oblique, and skin colour is brown to dark brown. Polygamy is the rule of marriage and polyandry is sometimes practised amongst them.

The KHAMPTI tribes have a descent from the Shan tribes and principally found in the country around Sadiya. The settlement generally follows the river valleys where they follow a system of migratory cultivation. Physically, the majority of the tribes is medium stature with broad heads, they are of a rather darker complexion. Their staple food consists of rice and vegetables etc. They all are vegetarians. They are mainly Buddhists. The females at the age of puberty are "sent from the house of their parents to one of these buildings called the House of virgins, and reserved entirely for the dwelling place of unmarried women. From the time that the young girl enters this place she never sleeps anywhere else until married. Rising at day light in the morning, she returns to the house of her parents, spends the day there assisting in the house-hold duties, and returns to her sleeping place with other unmarried females at sundown."⁴ The same is the case with the boys. The Khamptis were originally immigrants from Bor-Khampti, the mountainous region which interposes between the eastern extremity of Assam and the Valley of the Irrawaddy. They are of Shan descent and adhere to the Buddhist religion.

Beyond the Abors eastward lie the various tribes of MISHMIS. Roughly speaking, it may be said that the whole of the hills which

3. Majumdar, *Social Anthropology*, p. 343.

4. T T Cooper, *New Routes for Commerce, The Mishme Hills*, p. 117.

close the north-east corner of the Assam Valley are occupied by these tribes. From the Dibong to the Digaru, in the ranges to the north of Sadiya are to be found the Chulkatta or "crop-hair" the most dangerous of all the Mishmi clans, who derive their cognomen from their fashion of cutting the hair square across the forehead. From the Digaru river westward, and on both sides of the Brahmaputra, reaching up the frontier of Tibet on the north and as far as the Nimlong river on the south, are various other sects of Mishmis known as the Tain, Mezo, and Maro clans. Col. Dalton gives their habitat as 96° to $97^{\circ} 30'$ East long., $27^{\circ} 40'$ to $28^{\circ} 40'$ North Lat. "The Mishmis to the west of the Du river, an affluent of the Brahmaputra above the Brahmapunda, trade with the British possessions and are in the habit of constant intercourse with us." These are the Tain or Digaru. The Tain Mishmis are sheep traders.

Of the SINGPHOS we possess an admirable account from the pen of Col. Hannery, whose knowledge of the North Eastern Frontier and Burma was singularly extensive. He considers the Singphos to be identical in race with the Kakus or Kakhyens of Burma, whose chief habitat was on the great eastern branch of the Irrawaddy. They extended nearly as far as North lat. 24° , while touching on the north and east the borders of China in Lat. $27^{\circ} 30'$ with the break up of the Northern Shan Kingdom, the Kakhyens entered on a career of aggression and conquest, which practically placed in their hands the whole country lying between upper Assam and Bhamo. Such is the account of the origin of the people put forward by the best critics, but the Singphos of Assam will by no means allow themselves to be called as Kakus or Kakhyens, though they do in fact call their eastern and southern brethren by that name, and maintain the same family titles and divisions of class as prevail among the more remote tribes.

The following are the designations of the principal clans—(1) Tesan, (2) Mirip, (3) Lophae, (4) Lutlong, and (5) Mayrung. Each clan has a Kaku and a Singpho branch. Besides these there is a clan of Lattora Kakus called Lessou, on the east of Assam, who originally came direct from the Chinese frontier. The different member and branches of Singpho clans and families are thus distinguished¹—Gam is the affix indicating the elder branch or member of a family. Nouning the second, (Dalton errs apparently in making La^a the second); La, the third; Thu, the fourth; Tung, the fifth, etc., we have thus Beesa Gam, the head of that clan; Ningroo La, the third branch of the Ningroo family; and so on. In Assam (with the exception of the Pusi Gam, Kudjoo, and Jagaoon, who appear to be distinct families, and Tang Jang

¹ *Peradeniya, Notes to the Khasi, p. 70.*

Tung of the Mayrung clan), the whole of the resident Singphos are of the Tcsan division.

Eastward of the Bhuruli river, and occupying the hills north of Naodwar (the nine passes) in Durrung, and Chadwar (the six passes in Lakhimpur, as far east as the upper courses of the Sundi lie the numerous cognate tribes of DUPHLAS.¹ Mohammed Kazim wrote in the days of Aurungzeb "The Dushls are entirely independent of the Assam Raja, and whenever they find any opportunity, plunder the country contiguous to their mountains". They are, however, not so much a single-tribe as a collection of petty clans independent of each other, and generally incapable of combined action. The Duphlas call themselves only "Bangs", meaning "men". The tribes on the border of Durrung are now generally called "Paschim" or western Duphlas, and those on the border of North Lakhimpur, "Tagin" Duphlas. The Duphla hills are not specially difficult to access. According to G. Campbell the tribes have no unity of organization; every village is separate, and if one is hostile, the next may be friendly.

The LUSHEIS are mostly confined to areas such as Lushai Hills and adjacent parts of Cachar. Colonel Lewin derives the name Lushai from "Lu", a head, and "Sha" to cut. This is, of course, a mistake, as the name of the clan is not Lushai, but Lushci, and though "Sha" does mean to cut off, and could not be used for cutting off a man's head but that such a mistake should have been possible, shows how firmly rooted was the belief that head-hunting was one of the peculiarities of the population of these hills. I believe that as far as the Lushcis and their kindred clans are concerned, head-hunting was not indulged in. By this I mean that parties did not go out simply to get heads. Of course a man who had killed a man was thought more highly of than one who had not, and therefore, when a man did kill a person, he brought the head home to show that he was speaking the truth; but the raids were made not to get heads but for loot and slaves; the killing and taking of heads were merely incidents in the raid, not the cause of it.

Anthropologically the race is distinctly a short one, and according to Major Shakespear the men being from 5 ft. 2" to 5 ft 6" while the women seldom reach 5 ft. Both men and women are stoutly built and have very muscular legs. The men seldom have any hair on their faces, and if a man can grow a moustache he generally pulls out all the hairs except those growing at the cor-

1. Pol. Proc. 1837, No. 64

2. Asiatic Researches, Vol. 11

ners of his mouth. The women pierce their ears when young, and insert disc of baked clay, which are continually increased in size till the lobe of the ear is distended, so that a ring $1\frac{1}{2}$ " in diameter can be inserted. In this hole an ivory ring is worn. On a women being left a widow, she removes her earrings, and when she definitely gives up all idea of re marrying she slits the lobes of her ears. The men sometimes wear very small wooden or bone studs in the lobes of their ears.

The hair of both sexes is drawn straight back and tied in a knot behind. In this knot pins of various shapes and materials are worn. Widows wear their hair loose. It is considered unwise for males who have reached the age of puberty to cut their hair as doing so is sure to bring on ill-health.

All children run about naked for the first two or three years of their lives. The clothing of the men consists of a coat which reaches below the waist, but is only fastened at the throat, and a single cloth, which is worn thus - one corner is held in the left hand and the cloth is passed over the left shoulder behind the back under the right arm, and the corner thrown over the left shoulder again. When working, or in hot weather, the coat is generally dispensed with, and the cloth simply rolled round the waist with the ends loosely knotted hanging down in front. Men sometimes wear turbans. Both body clothes and turbans are generally white, but dark blue clothes with coloured stripes are worn by the better off people. The women wear coats and clothes like the men and in addition a short dark blue petticoat reaching just to the knee. Both the sexes are fond of ornaments

A young Lushei generally chooses his own wife, and sends a "palai" or representative, to her parents to arrange the details of the price to be paid. These settled, the bride is escorted to her future husband's parent's house by a party of friends, being pelted with dirt by all the children of the village. The parents of the bridegroom receive the party with brimming cups of rice beer and when justice has been done to this, a fowl is produced by the bridegroom and slain by the pui-thian or sorcerer, who mutters certain charms over it. Directly this is over, the bride and her girl friends retire, while the rest of the party indulge in a great feast, the bridegroom having to provide a fowl for each of those entitled to a share in the price of the bride. The following evening the bridegroom's mother goes and fetches the bride and hands her over to him at his house. The following morning, the bride returns to her parent's house and spends the day there, this she continues to do for some time. The bonds of matrimony are very loose. If a couple do not get on they can separate by mutual consent, or if the husband does not like the woman he can simply send her back to her parents. In both these cases he does not

recover any part of the price he may have paid and the receipt of the price is bound to support the woman till she is married again. If a woman commits adultery, or leaves her husband without his consent, her relatives have to refund whatever they received on her account. A widow is at liberty either to return to her own people, in which case her late husband's relatives take all his property and his children; or she may continue to live in his house in which case she retains his property in trust for her relatives have to pay back her price to her late husband's relations; who take all the property and also the children.

Until a girl is married, she may indulge in as many intrigues as she likes, but should she become pregnant, her lover must pay a "metna" to her father; he will, however, be entitled to take the child when it is old enough to leave its mother. In case the child is a girl, the father, of course, gets the marriage price in due course. If a man is willing at once to marry a girl whom he has seduced he is not expected to pay more than the usual marriage price.

The women are very clever at weaving, and the clothes they make are strong and last a lifetime. The patterns they work are simple. The cotton used is grown in the Jhums, and cleaned and spun by the women themselves. The men are expert basket weavers. There are a very large number of different baskets, each with its proper name and use. Some of the black-smiths are very good workmen, being able to make gun-locks.

Villages are generally built on the top of a ridge or spur, and not on the slope of hill as is the custom among the Chins. The cause of this, is that the hills are higher in the country inhabited by the Chins, and therefore they can get healthy sites without going to the top of the ridges. In former days, the choice of the village site was much influenced by its defensive capabilities the migratory habits of the people precluding their constructing the elaborate defensive works found round the Chin villages. Every village was strongly stockaded, two or even three rows of stockades being found in some cases. The gateways were commanded by timber block houses, and at suitable points on the roads block houses were built which were occupied whenever there was any fear of attack. The ground round the stockades and block houses was planted with sharpened bamboo spikes, which formed a very serious obstacle to a barefooted foe.

The only sort of cultivation known is Jhuming. The chief crop is rice, which ripens in November and December, the other important crop is maize, which is reaped in August. Peas and beans of various kinds, and a certain amount of millet are also

grown. The same piece of land is seldom cultivated two years running, and this, of course, causes all the land within the reach of village to be moved to some other site whence new land can be jhumed.

The following tribes are the important ones in Assam. Their numbers are as follows :

Abors	14042
Akkas	38
Dafflas	1600
Deorichutiya	4000
Lalung	43440
Mikirs	129797
Miri	85038
Mishmi	2234

Their dialects generally belong to the Sino-Tibetan family, and their numbers at the Census of 1891 and 1901 were accordingly unimportant :

Name of Language	Census of 1891	Census of 1901	
Akka	20	20	Later figures
Abor	170	357	are not
Miri	35510	40472	available
Dafila	990	805	
Mishmi	220	71	
Total	36910	41731	

Economic Grading

The major portion of the Indian tribes are wholly dependent upon forest products. Assam state is very suitable for growing tea so far as climate and soil are concerned. Thus tea plantation occupies a central position in the economic activities of the tribal people of Assam State in India. Besides this, shifting cultivation is widely prevalent amongst the tribal population of Assam. Cotton is available in large quantities in Garo hills,¹ in Nowgaon and in Manipur. There the Garo tribes of Assam have specialised in cotton clothes and manufacture the towels and specially the bed sheets etc. Basket making is another source of livelihood.

1. G. A. Grierson, *Linguistic Survey of India*, Vol. III, Pt. I, p. 568.

2. Hutton, *Census of India 1931*, Vol. I, Part I, p. 483.

3. A. K. Y. N. Aiyar, *Field Crops in India*, p. 386.

APPENDIX I

Population, Area, Density, Special groups by State, 1951.

The following table gives the population, area etc. of the States and Territories forming the Indian Union :

States	Area in Sq. miles (a)	Population	Density of Population	Anglo-Indians 1951-Census (c)	Scheduled Castes 1951 estimates	Scheduled Tribes 1951 estimates
Andhra Pradesh	1,05,663	36,11,51,669	291	3,502	44,15,995	11,49,919
Assam	45,767	8,72,874	176	1,055(b)	4,24,044	17,61,434(b)
Bihar	76,164	5,87,84,172	572	4,379	49,13,990	58,80,097
Bombay	1,90,919	4,82,65,221	253	7,857	52,02,077	37,43,408
Jammu Kashmir	85,861	44,10,000	51			
Kerala	15,033	1,35,49,118	901	14,947	12,07,294	1,54,757
Madhya Pradesh	1,71,201	2,60,71,637	152	2,173	39,12,205	48,44,128
Madras	50,110	2,99,74,956	598	22,277	55,81,856	1,56,576
Mysore	74,226	1,91,01,193	261	15,169	21,83,142	80,402
Orissa	60,136	1,46,45,946	244	485	26,29,250	30,09,180
Punjab	47,456	1,65,34,890	340	1,174	34,90,983	2,661
Rajasthan	1,32,077	1,59,70,774	121	1,038	25,02,202	17,74,278
Uttar Pradesh	1,55,409	6,52,15,742	138	6,543	1,31,00,398	
West Bengal Territories	33,949	2,63,01,592	775	31,922	47,43,713	15,66,868
Andamans	3,215	30,971	10			
Delhi	578	17,44,072	3017	812	2,68,130	27,928
Himachal Pradesh	10,904	11,09,460	102	10	3,19,972	13,486
Laccadives	10	21,035	2,144			
Manipur	8,128	1,77,635	67		28,647	1,94,259
Tripura	4,032	6,39,627	158	94	46,608	1,92,293
India	12,66,900	36,11,51,669	312(c)	1,11,637	3,51,70,886	2,25,12,854

(a) Provisional

(b) Inclusive of Naga Hills District now in N.I.F.A.

(c) In working out the figure the area and population of Jammu and Kashmir and of the Part B Tribal areas of Assam have not been taken into account.

APPENDIX II

Livelihood Pattern—Scheduled Castes and Tribes.

The following table shows the figures for the scheduled castes and Tribes for the states which were not affected by the reorganisation of the States (Nov. 1956) which took place after the census 1951.

State	Scheduled Castes			Scheduled Tribes		
	Total	Agricultural Classes	Non-agricultural Classes	Total	Agricultural Classes	Non-agricultural Classes
Uttar Pradesh	1,14,79,102	90,11,654	24,67,448	..	..	..
Orissa	26,30,763	19,25,763	7,05,000	29,67,334	2,615,289	352,041
Assam	4,24,044	2,54,924	1,69,118	17,55,245	16,26,668	1,28,577
Manipur	..	..	..	1,94,239	1,88,532	5,707
Tripura	46,371	30,311	16,060	1,92,459	1,80,701	11,758
Punjab	23,86,143	14,21,117	9,65,026	2,429	..	254
IFPSU	6,76,302	4,72,542	2,03,760	..	..	..
Dalhi	2,08,612	23,249	1,85,363	..	..	..
Bihar	27,135	35,129	3,606	..	..	..
Himachal Pradesh	2,24,610	2,08,413	16,197	..	..	..
India	5,55,43,898	5,81,18,959	1,32,24,939	1,92,16,498*	1,72,84,260	1,82,7,422

1. Figures for the present Punjab could be obtained by adding the figures for the old Punjab and PERSU.

2. Merged with Himachal Pradesh after 1st July 1954.

* The figures include about 1,000 persons in Madras who returned themselves as Harijans but were misclassified as "scheduled Tribes."

APPENDIX III

Note that there is a discrepancy between the figures here and those on table, I. The latter were published in 1936 after the reorganization of States, but are also based on the 1931 census. The discrepancy could be ascribed to a different basis of reckoning.

Groups	Number in Lakh			Number per 1,000 persons		
	Population	Scheduled castes	Scheduled Tribes	Population	Scheduled castes	Scheduled Tribes
All Agricultural classes	2,491	381	173	1,000	153	70
All Non-agricultural classes	1,076	132	18	1,000	123	17
<i>Agricultural Classes</i>						
(i) Cultivators of Land, wholly or mainly owned and their dependents	1,674	174	123	1,000	104	73
(ii) Cultivators of Land, wholly or mainly unowned and their dependents	316	56	19	1,000	176	59
(iii) Cultivating Labourers, and their dependents	448	148	28	1,000	330	63
(iv) Non-cultivating owners of Land, agricultural rent receivers and their dependents	33	3	1	1,000	61	12
<i>Non-Agricultural Classes</i>						
Persons (including dependents) who derive their principal means of livelihood from :—						
(v) Production other than cultivation	377	53	7	1,000	142	20
(vi) Commerce	213	9	1	1,000	44	6
(vii) Transport	56	6	1	1,000	110	11
(viii) Other services	430	64	9	1,000	147	20
<i>Miscellaneous Sources</i>						
India						
Total	3,567*	513	191	1,000	144	54
Rural	2,948	462	186	1,000	157	63
Urban	619	51	5	1,000	83	8

* This does not include 1.33 lakh figures and Cl and mager and Salim.

APPENDIX IV

The following table shows the figures for the Scheduled Castes and Scheduled Tribes, according to 1961 Census.

State	Scheduled castes	Scheduled Tribes
Andhra Pradesh	49,73,616	33,24,368
Assam	7,32,756	20,68,340
Bihar	65,36,875	40,24,770
Gujarat	13,67,233	27,54,440
Jammu and Kashmir	2,68,130	---
Kerala	14,22,057	2,07,996
Madhya Pradesh	42,53,024	66,78,410
Madras	60,72,336	2,52,646
Mysore	22,26,914	23,97,359
Orissa	31,17,232	1,92,096
Punjab	27,63,838	42,23,757
Rajasthan	41,39,106	14,132
Uttar Pradesh	33,59,640	23,09,447
West Bengal	1,54,17,245	---

Union Territories and Other areas :—

Andaman and Nicobar Islands	---	14,122
Dadra and Nagar Haveli	1,184	51,261
Delhi	3,41,555	---
Himachal Pradesh	3,69,916	1,08,194
Laccadive, Minicoy and Amindivi Islands ..	..	23,195
Manipur	13,376	2,49,094
Nagaland	126	3,43,697
North East Frontier Tract	---	5,042
Pondichery	56,861	---
Tripura	2,19,713	3,60,070

APPENDIX V

Tribal Languages in India, 1961 Census

Dravidian Adivasi Languages—

Tulus	1,32,000	Speakers
Kodagus	45,000	
Kandhas	5,86,000	
Orons	10,38,000	
Malto	71,000	
Todas	600	
Bodaga	67,286	
Gadaba	54,454	

Austic Family—

Santali	25,00,00,000
Mundari	6,50,000
Ho	4,50,000
Kharia	1,80,000
Bhumij	1,13,000
Savara	1,96,000
Korku	1,60,000
Khasis	2,34,000

Nicobarese

Tibeto-Chinese Family—

Lepcha	23,000
Kanauti	26,000
Kiranti	88,000
Magari	18,000
Murmi	43,000
Tharus	37,000
Bhotiyas	10,000
Newari	3,00,000
Mikirs	1,26,000
Nagas	3,49,000
Lushais	60,000
Manipuris	3,92,000
Neros	2,00,000
Khamptu	5,000
Singphos	2,000
Ahoms	10,00,000

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